

Water Resources Delineation Report

64 Acres, North Blue Lake Road Smith Township, Whitley County, Indiana

December 2014

Prepared for: All American RV Resorts I, LLC. 2042 Broadway Fort Wayne, Indiana 46802

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Executive Summary

The 64-acre site is located at the Blue Lake Campground west of Blue Lake Road and north of County Road 550 North in Smith Township, Whitley County, Indiana. A water resources delineation was performed by Jacob Bannister and Molly Baughman on November 11, 2014.

The study area contains disturbed/developed area, lawn, upland woods, successional woods, upland old fields, emergent wetlands, and forested wetlands. A map showing the location and size of the water resources identified on the property is shown in Appendix A. A map showing general plant communities found on the site is in Appendix B. Three wetlands totaling 12.224 acres are found within the study area (Table 1). There is a perennial stream with a length of 982 feet on the site (Table 2).

Table 1. Jurisdictional Wetlands Delineated on the Site

Wetlands	Type	Connectivity to Waters of the US ¹	Area (Acres)
A	emergent	isolated	0.120
В	forested/emergent	non-isolated	3.486
C	emergent/forested	non-isolated	8.618
Total			12.224

¹ The final determination of a wetlands' connectivity to Waters of the U.S. is made by the U.S. Army Corps of Engineers.

Table 2. Jurisdictional Drainageways Delineated on the Site

Stream	Type	Length (Linear Feet)
Maloney Ditch	perennial	982
Total		982

Introduction

Study Area Description and Location

The 64-acre site is located at Blue Lake Campground in Smith Township, Whitley County, Indiana (Appendix C). The property is bounded on the east by North Blue Lake Road, on the north by County Road 575 North, and on the South by Blue Lake (Appendix D).

The property contains disturbed/developed area, lawn, upland woods, successional woods, upland old fields, emergent wetlands, and forested wetlands. Buildings are present on site including the Camp Office, outbuildings, and two small cabins, as well as numerous RVs parked in the camping area. An aerial photograph of the study area is included in Appendix E.

A small perennial stream, Maloney Ditch, flows across the site from north to south. This stream flows south off the site into Blue Lake. Blue Lake outlets to the Blue River, which then drains to the Eel River near Columbia City, Indiana. The Eel River flows to the Wabash River in Logansport, Indiana. The Wabash River flows to the Ohio River at the southwest corner of Indiana. The site is within the eight-digit Hydrologic Unit Code (HUC) Eel River watershed (05120104).

Secondary Source Information

The property is shown on the Churubusco Quadrangle of the United States Geological Survey (USGS) map (Appendix F). Elevations range from approximately 850 to 890 feet across the site.

The National Wetlands Inventory (NWI) map (Churubusco Quadrangle) is in Appendix G. There are multiple NWI wetlands mapped on the site. The wetlands on site are mapped as a palustrine, forested system characterized by broad-leaved, deciduous woody vegetation that is temporarily flooded (PFO1A); palustrine, forested systems characterized by broad-leaved deciduous woody vegetation that are seasonally flooded (PFO1C); a palustrine, emergent system dominated by persistent species that is saturated for extended periods of time (PEM1B); as well as a palustrine, scrub-shrub system characterized by broad-leaved deciduous woody vegetation that is seasonally flooded (PSS1C)

A map from the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey showing the soil types located on and adjacent to the site is found in Appendix H. Table 3 provides a list of soil types mapped for the site.

Map Unit	Soil Description
Со	Coesse silty clay loam ¹
HbA	Haskins loam, 0 to 3 percent slopes
Hs	Houghton muck, undrained ¹
Ht	Houghton muck, drained ¹
Md	Martisco muck, drained ¹
MvC2	Morley loam, 6 to 12 percent slopes, eroded
MvD2	Morley loam, 12 to 20 percent slopes, eroded
MxC3	Morley clay loam, 5 to 12 percent slopes, severely eroded
MxD3	Morley clay loam, 12 to 20 percent slopes, severely eroded
RcB	Rawson sandy loam, 2 to 6 percent slopes
Re	Rensselaer loam ¹

Table 3. Soil Types Mapped for the Site

¹Hydric soil

Methodology

The Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0) to the Corps of Engineers Wetland Delineation Manual (U.S. Army Corps of Engineers 2010; Environmental Laboratory 1987) was used in delineating wetlands within the study area. Water resources were delineated and surveyed on November 11, 2014. The water resources delineation fieldwork, boundary mapping, and data analysis were performed by Jacob Bannister and Molly Baughman. Ken Christensen prepared the vegetation and water resources maps using AutoCAD[®] Map 3D 2012. Kim Klosterman prepared the maps included in Appendices C−H using ArcGIS[™] v.9.3. Alicia Douglass provided technical oversight and quality control.

Streams are identified as linear, flowing water features with a defined bed and bank. Streams are subsequently classified as ephemeral, intermittent, or perennial based upon flow regime. Ephemeral streams have flowing water only during, and for a short duration after, precipitation events. Intermittent streams have flowing water during certain times of the year when groundwater and rainfall provide water for stream flow. During dry periods intermittent streams may not have flowing water. Perennial streams have flowing water year-round, receiving water from groundwater and rainfall runoff. Non-jurisdictional swales are channels that convey water for short periods of time, but lack an obvious ordinary high watermark.

Wetlands are identified based on three criteria: vegetation, soils, and hydrology. An area must meet all three criteria to be considered a jurisdictional wetland. Nine sampling points were established in the field to determine wetlands boundaries. Data sheets reporting the results of soils, vegetation, and hydrology analyses were completed for each sample station and are located in Appendix K.

Soil samples were obtained to determine the extent of hydric soils on the site. A standard Munsell soil color chart was used to determine the hue, value, and chroma of each soil sample. Soil samples were taken to a depth to adequately make a hydric soil determination. Criteria established by the National Technical Committee for Hydric Soils (1991) were used to determine hydric soils.

Wetland hydrology was characterized during this water resources delineation. Primary hydrological indicators, such as inundation, soil saturation, watermarks, drift lines, algal mat, iron deposits, sparsely vegetated concave surface, sediment deposits, hydrogen sulfide odor, blackened leaves, and oxidized rhizospheres, were noted as applicable. Secondary hydrological indicators, such as stunted or stressed plants, geomorphic position, FAC-neutral test, dry season water table, and crayfish burrows, were also noted as applicable.

Quantitative vegetation data were collected at each sampling point. Dominance was estimated by percent areal cover. Four strata were considered for each sample point—trees, saplings/shrubs, herbs, and woody vines. Trees were defined as any woody plant having a diameter at breast height (DBH) greater than 3.0 inches. Saplings and shrubs were those woody plants with a DBH of less than 3.0 inches and greater than 3.2 feet in height. For each stratum, plant species within a plot were identified and percent areal cover was estimated for each species. Thirty-foot-radius plots were used for trees and vines; 15-foot-radius plots were used for saplings and shrubs; and 5-foot-radius plots were used for herbs.

Any species within a stratum comprising 20% or more of the total plot areal cover was considered to be dominant. Dominant species within all strata were then added to determine the percentage of wetlands vegetation for each sample point. The wetlands vegetation criterion was met if greater than 50% of the dominant vegetation was indicative of wetlands conditions.

Species identifications are based on Mohlenbrock (1986), Newcomb (1977), Peterson and McKenny (1968), Petrides (1972), and Yatskievych (2000). Lichvar et al 2014 was used to assign indicator statuses to each identified species. Plants with an indicator status of obligate (OBL), facultative wetland (FACW), or facultative (FAC) were considered to be indicative of wetlands conditions. Plants with an indicator status of facultative upland (FACU) or upland (UPL) were considered to be indicative of upland conditions. Plants that could only be identified to genus were sometimes assigned an indicator status based on the professional judgment of Davey Resource Group. These plants were classified as wetlands indicator species (WIS) or upland indicator species (UIS). See Appendix I for a more detailed explanation of wetlands vegetation indicator statuses.

Survey flags were placed at necessary points around each wetland to accurately depict the wetland upland boundary. The location of each flag was surveyed using a GeoXH[™] Trimble[®] GeoExplorer[®] 6000 series Dual-frequency Global Navigation Satellite System or GNSS (GPS, GLONASS, SBAS [WAAS]) receiver and antenna with Everest[™] multipath rejection technology and Floodlight technology with 220 channels, running professional TerraSync[™] software capable of decimeter (10–75cm) accuracy after differential correction.

Trimble[®] GPS Pathfinder[®] Office software was used for postprocessing the GNSS field collected data incorporating Trimble[®] DeltaPhase^{$^{\text{TM}}$} differential correction technology using GPS data collected from an appropriate base station. The corrected GPS latitude-longitude positions were exported into a compatible coordinate system as an AutoCAD[®] drawing interchange file (DXF). The vegetation and water resources maps included in this report were prepared using AutoCAD Map[®] 2012 software.

Streams and wetlands that are hydrologically connected to other traditional navigable waters of the United States are considered non-isolated and fall under the federal jurisdiction of the U.S. Army Corps of Engineers (USACE) and Indiana Department of Environmental Management (IDEM). All hydrologically isolated wetlands that lack connectivity to other surface waters are regulated by IDEM.

Results

Vegetation

A map showing the locations of vegetative communities present on the property is in Appendix B. The site contains upland woods, successional woods, upland old fields, emergent wetlands, and forested wetlands. Photographs showing water resources identified on the site are included in Appendix J.

Disturbed/Developed Area. An area of disturbed/developed area is found on site along the lake shore. This area contains many RV camping sites and is dominated by turfgrass species and also contains *Cirsium arvense* (Canada thistle, FACU), *Daucus carota* (Queen Anne's-lace, UPL), and *Taraxacum officinale* (common dandelion, FACU).

Lawn. An area of lawn is present on site near the entrance from North Blue Lake Road. This area contains turfgrass species as well as many of the weedy species found in the Disturbed/Developed and Upland Old Field areas.

Upland Woods. An area of upland woods containing mature trees is found on the site. Common species include *Acer saccharum* (sugar maple, FACU), *Carya ovata* (shagbark hickory, FACU), and *Quercus alba* (white oak, FACU).

Successional Woods. Areas of successional woods are found bordering Wetlands C and B on the site. These areas contain *Acer negundo* (ash-leaf maple, FAC), *Alliaria petiolata* (garlic mustard, FAC), *Celtis occidentalis* (common hackberry, FACU), *Geum canadense* (white avens, FAC), *Gleditsia triacanthos* (honey locust, FACU), *Juglans nigra* (black walnut, FACU), *Prunus serotina* (black cherry, FACU), *Rosa multiflora* (multiflora rose, FACU), amd *Rubus occidentalis* (black raspberry, UPL).

Upland Old Fields. Upland old fields are common in the northern portion of the site. Common species include *Aster* spp. (asters), *Bromus arvensis* (field brome, FACU), *Cirsium arvense* (Canada thistle, FACU), *Daucus carota* (Queen Anne's-lace, UPL), *Elaeagnus angustifolia* (Russian olive, FACU), *Festuca* spp. (fescues), *Gleditsia triacanthos* (honey locust, FACU), and *Solidago canadensis* (Canada goldenrod, FACU).

Emergent Wetlands. Wetland C and a small portion of Wetland B are emergent wetlands. These areas are dominated by *Phalaris arundinacea* (reed canary grass, FACW). Other species observed include *Cornus alba* (red osier, FACW), *Lysimachia nummularia* (creeping-jenny, FACW), *Penthorum sedoides* (ditch-stonecrop, OBL), *Typha* spp. (cat-tails, OBL), *Urtica dioica* (stinging nettle, FACW), and *Verbena hastata* (simpler's joy, FACW).

Forested Wetlands. Wetland A and the majority of Wetland B are forested wetlands. These wetlands contain *Acer saccharinum* (silver maple, FACW), *Cornus alba* (red osier, FACW), *Leersia virginica* (white grass, FACW), *Phalaris arundinacea* (reed canary grass, FACW), *Populus deltoides* (eastern cottonwood, FAC), *Toxicodendron radicans* (poison ivy, FAC), *Ulmus americana* (American elm, FACW), *Urtica dioica* (stinging nettle, FACW), and *Vitis riparia* (river-bank grape, FACW).

Soils

The soils generally match what is mapped on the soil survey. Areas of hydric soils correspond to the areas of wetlands on the site. The soils within Wetland B and a portion of Wetland C meet the depleted matrix (F3) hydric soil indicator. The soils within Wetland A and a portion of Wetland C meet the redox dark surface (F6) hydric soil indicator.

Hydrology

Observed wetland hydrology indicators include oxidized rhizospheres on living roots, saturated soils, surface water, water-stained leaves, saturation visible on aerial imagery, and the FAC-neutral test.

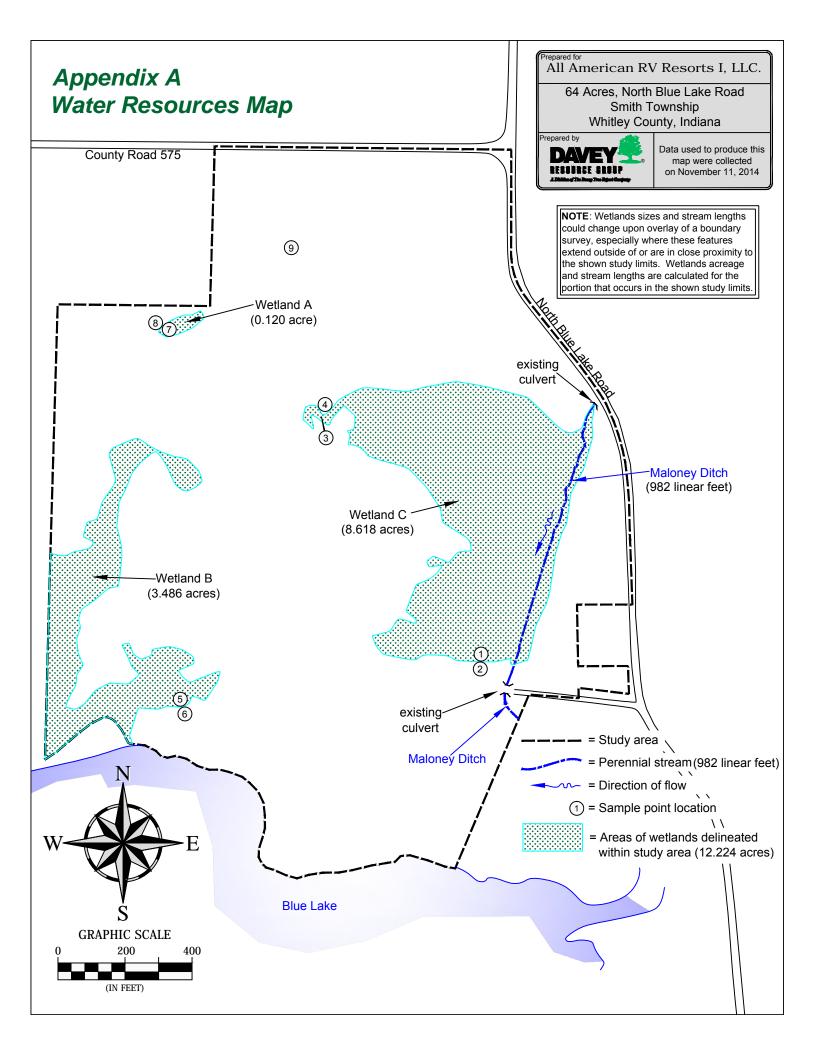
All of the wetlands on this site are fed by surface water. Wetland C is also fed by overflow from Maloney Ditch. Wetland B is fed by overflow from Blue Lake. Wetland A is located in a slight depression near the northern border of the site. Wetland B is abutting Blue Lake and Wetland C contains the majority of Maloney Ditch on site; thus, these two wetlands are non-isolated. Wetland A appears to be isolated with no apparent connection to Blue Lake or the other wetlands on site. Isolated Wetland A will fall under the jurisdiction of IDEM, and the two non-isolated wetlands will fall under the jurisdiction of USACE and IDEM.

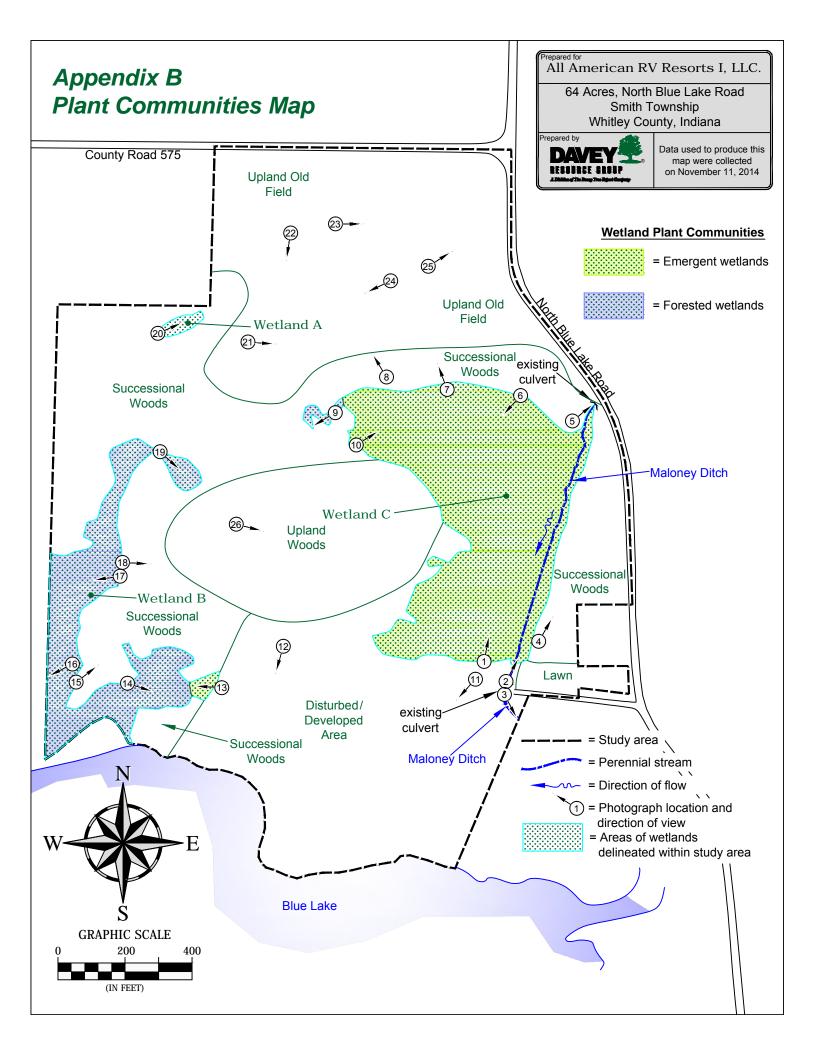
Conclusions

A map showing the location and size of the water resources identified on the property is shown in Appendix A. Three wetlands totaling 12.224 acres are found within the study area. There are 982 linear feet of perennial stream on the site.

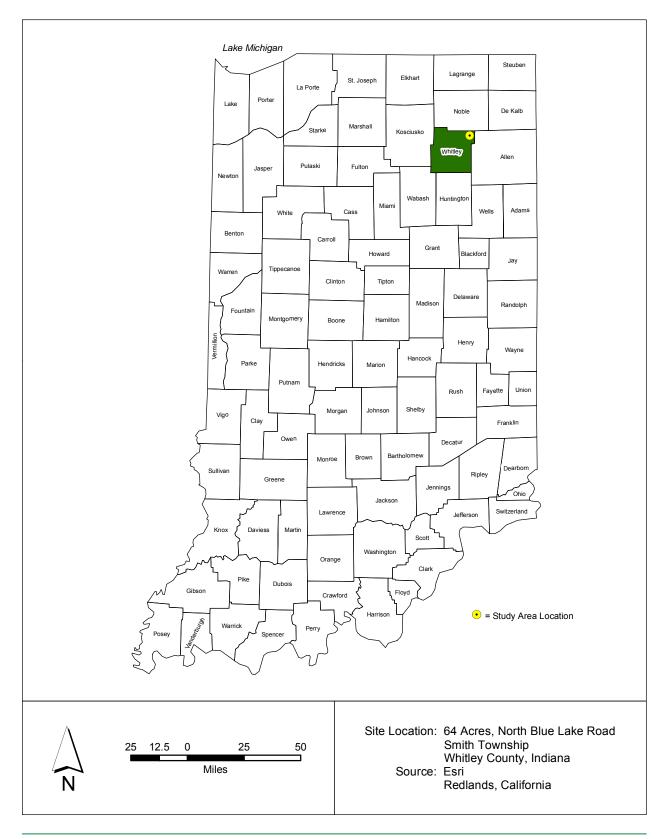
Davey Resource Group is confident that all jurisdictional wetlands and drainageways were identified on this site. No unusual or problem areas were found. All water resource studies conducted by Davey Resource Group are objective and based strictly on professional judgment. Davey Resource Group and its employees have no vested interest in this property or the proposed project. Appendix L contains references used in the creation of this report, and Appendix M provides profiles of all Davey Resource Group personnel who contributed to this report.

All water resources delineations must be verified by the USACE to be considered official. This water resources delineation is reflective of environmental conditions at the time the fieldwork was performed. Wetlands and streams are dynamic natural systems; therefore, boundaries may change slightly over time.





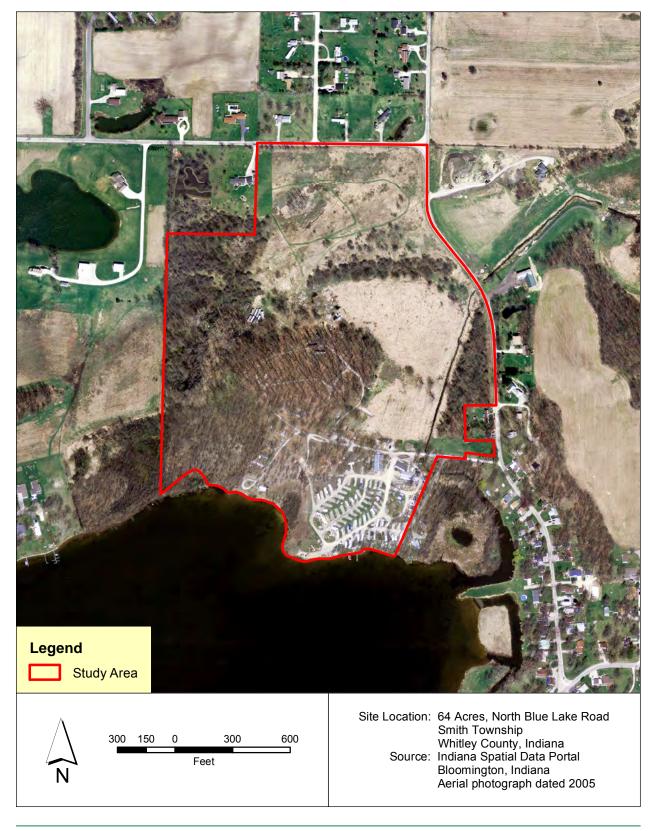
Appendix C Location of Whitley County on Indiana County Map



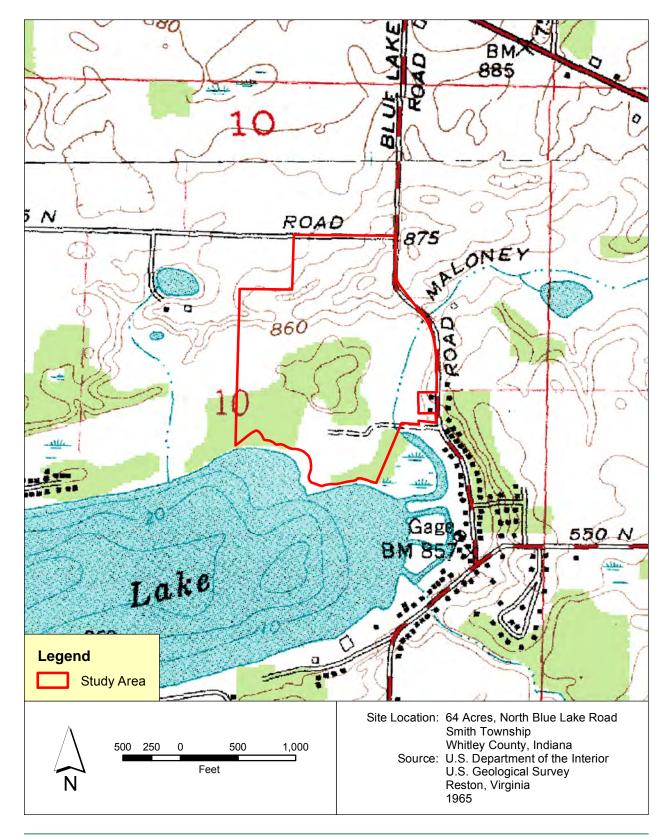
Appendix D Location of Study Area on Highway Map



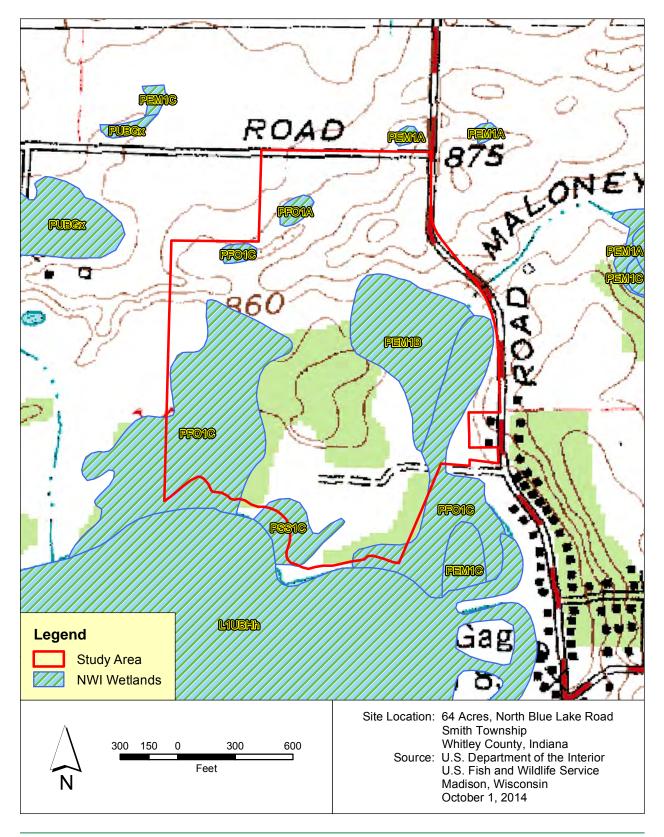
Appendix E Location of Study Area on Aerial Photograph



Appendix F Location of Study Area on USGS 7.5-Minute Topographic Map (Churubusco Quadrangle)



Appendix G Location of Study Area on National Wetlands Inventory Map (Churubusco Quadrangle)



Appendix H Location of Study Area on Whitley County Soil Survey Map



Appendix I Definition of Wetlands Vegetation Indicator Status (from Lichvar et al 2014)

Obligate Wetlands (OBL). Almost always is a hydrophyte, rarely in uplands.

Facultative Wetlands (FACW). Usually is a hydrophyte but occasionally found in uplands.

Facultative (FAC). Commonly occurs as either a hydrophyte or non-hydrophyte.

Facultative Upland (FACU). Occasionally is a hydrophyte but usually occurs in uplands.

Obligate Upland (UPL). Rarely is a hydrophyte, almost always in uplands.

Species for which little or no information was available to base an indicator status were assigned a no indicator (NI) status. An asterisk (*) after the indicator status indicates that the indicator status was based on limited ecological information.

The wetlands indicator categories should not be equated to degrees of wetness. Many obligate wetlands species occur in permanently or semipermanently flooded wetlands, but a number of obligates also occur, and some are restricted to wetlands that are only temporarily or seasonally flooded. The facultative upland species include a diverse collection of plants that range from weedy species adapted to exist in a number of environmentally stressful or disturbed sites (including wetlands), to species in which a portion of the gene pool (an ecotype) always occurs in wetlands. Both the weedy and ecotype representatives of the facultative upland category occur in seasonally and semipermanently flooded wetlands.

Davey Resource Group has added two additional indicators for situations when plants can only be identified to genus. A Wetlands Indicator Species (WIS) is a plant that is most likely obligate wetlands, facultative wetlands, or facultative. An Upland Indicator Species (UIS) is a plant that is most likely indicative of upland or facultative upland conditions. These additional indicators are used when species identification is not possible. A variety of factors are part of the UIS and WIS assignments. Indicator statuses of all locally occurring members of the genus in question are considered, as are the health and size of the population and the indicator status of nearby plants.

Appendix J Photographs of Site



Photograph 1 (11-11-14) Wetland C is a large emergent wetland with a small forested portion.



Photograph 2 (11-11-14) Maloney Ditch flows north to south across the eastern portion of the site.



Photograph 3 (11-11-14) Maloney Ditch flows south off of the site.



Photograph 4 (11-11-14) Successional woods were observed along the eastern border of the site.



Photograph 5 (11-11-14) Maloney Ditch enters the site via a culvert under North Blue Lake Road.



Photograph 6 (11-11-14) Wetland C is seen here facing southwest.



Photograph 7 (11-11-14) Successional woods north of Wetland C slope up away from the wetland.



Photograph 8 (11-11-14) Upland old fields are located north of the successional woods north of Wetland C.



Photograph 9 (11-11-14) A small forested portion of Wetland C is seen here, dominated by *Populus deltoides* (eastern cottonwood, FAC).



Photograph 10 (11-11-14) Small pooled areas were observed along the western edge of Wetland $\rm C.$



Photograph 11 (11-11-14) The campground office and various outbuildings are found north of the existing RV camping area.



Photograph 12 (11-11-14) Existing RV campsites extend across the southern edge of the campground adjacent to Blue Lake.



Photograph 13 (11-11-14) A small emergent wetland was observed along the eastern edge of Wetland B.



Photograph 14 (11-11-14) The majority of Wetland B is forested wetland.



Photograph 15 (11-11-14) Areas of successional woods border Wetland B to the east.



Photograph 16 (11-11-14) Wetland B extends west off of the site.



Photograph 17 (11-11-14) Areas of standing water were observed throughout Wetland \mathbf{B} .



Photograph 18 (11-11-14) Successional woods are seen here sloping up from Wetland B.



Photograph 19 (11-11-14) The small northern portion of Wetland B is seen here facing southeast.



Photograph 20 (11-11-14) Wetland C is a small pool found near the northern border of the site.



Photograph 21 (11-11-14) Upland old fields on site are seen here facing east.



Photograph 22 (11-11-14) Sample point 9 was taken in a low-lying area containing a mix of *Gleditsia triacanthos* (honey locust, FACU) and *Populus deltoides* (eastern cottonwood, FAC). No indicators of hydric soils or wetland hydrology were observed.



Photograph 23 (11-11-14) Upland old fields located in the northern portion of the site are seen here facing east.



Photograph 24 (11-11-14) A portion of the upland old fields on site contains a small service drive.



Photograph 25 (11-11-14) The service drive extends east into the upland old fields on site.



Photograph 26 (11-11-14) Upland woods were observed in an area of higher elevation centrally located on site. This area is dominated by mature tree species including *Carya ovata* (shagbark hickory, FACU) and *Quercus alba* (white oak, FACU).

Appendix K Vegetation, Hydrology, and Soils Data Sheets

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 64 Acres, Blue Lake Camp	ground, Smith Township	City	//County:	Whitley Cou	nty	Sampling Date:	11-Nov-14
Applicant/Owner: _All American RV Reso	rts I, LLC.			State:	IN	Sampling Point:	1
Investigator(s): Jacob Bannister and Mc		S	ection, Towr	 nship, Range	S 10		
Landform (hillslope, terrace, etc.): Flat				-		none): concave	_
-				,	, ,	-	
			Long.: _		A 11 A 67		
Soil Map Unit Name: <u>Martisco muck</u> ,		Vac (No O	(75		classification: PEM1B	
Are climatic/hydrologic conditions on the				•	cplain in Remarks		a o
Are Vegetation , Soil	, or Hydrology	significantly dist	turbed?	Are "No	ormal Circumstan	ces" present? Yes	● No ○
Are Vegetation , Soil	, or Hydrology	naturally proble	matic?	(If nee	ded, explain any	answers in Remarks.)	
SUMMARY OF FINDINGS - A	ttach site map sh	owing samp	ling poir	nt locatio	ns, transect	s, important feature	s, etc.
Hydrophytic Vegetation Present?	Yes No						
Hydric Soil Present?	Yes No			e Sampled A			
,	Yes No		withi	n a Wetland	d? Yes ●	No O	
Wetland Hydrology Present?	163 0 110 0						
Remarks:							
VEGETATION - Use scie	ntific names of pla	ants.	Dominant Species?				
To Charac (Plot size)	,		Rel.Strat.	Indicator	Dominance T	est worksheet:	
<u>Tree Stratum</u> (Plot size:		% Cover 0	Cover 0.0%	Status		minant Species	1 (4)
1			0.0%		I nat are OBL,	FACW, or FAC:	(A)
2			0.0%		Total Number		1 (p)
4			0.0%		Species Across	All Strata:	(B)
5.			0.0%			ominant Species	00 00/ (A/P)
			= Total Cov	er	That Are OBI	L, FACW, or FAC: $\frac{10}{100}$	00.0% (A/B)
_Sapling/Shrub Stratum (Plot size:)				Prevalence In	ndex worksheet:	
1		0	0.0%		Total %	6 Cover of: Multiply	by:
2			0.0%		OBL species		0
3 4.		0!	0.0%		FACW speci		
5.		0	0.0%		FAC species FACU species		0
			= Total Cov	 er	UPL species		0
)		_				
1 Phalaris arundinacea			100.0%	FACW	Column Tot	als: <u>100</u> (A)	<u>200</u> (B)
2		0	0.0%		Prevalen	ce Index = B/A =	2.000
3 4.			0.0%		Hydrophytic \	Vegetation Indicators:	
5.			0.0%		-	Test for Hydrophytic Vege	tation
6.			0.0%			ance Test is > 50%	
7			0.0%			ence Index is ≤3.0 ¹	
8		0	0.0%		4 - Morph	ological Adaptations 1 (Premarks or on a separate sl	ovide supporting neet)
9		0	0.0%			tic Hydrophytic Vegetation	•
10		0	0.0%			of hydric soil and wetland	
_Woody Vine Stratu (Plot size:)	100	= Total Cov	er	be present, u	or nyaric soil and wetland Inless disturbed or problei	nyarology must matic.
1		0	0.0%				
2.		_	0.0%		Hydrophytic Vegetation		
		0	= Total Cov	er	Present?	Yes 💿 No 🔾	
Remarks: (Include photo numbers	here or on a separate	sheet.)					
1							

SOIL Sampling Point: 1

Clock Color Content Sp. Color (moist) Sp. Color (moist) Sp. Type Color Texture Remarks	Color (molet)	Depth	Matr	-		dox Feat			e absence of indicator	•	
Solid Content Solid Conten	1 1 1 1 1 1 1 1 1 1	•						Loc2	Texture		
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Sandy Gleyed Matrix (S4)	Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains, Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains, Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains, Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains, Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains, Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains, Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains, Tindicators for Problematic Hydric Soils 3: Indicators for Problematic Hydric Soils 5: Indicators for Problematic Hydric Soils 7: Indicat	0-5	5Y 2.5	/1 100					Silt Loam	contains o	rganic material
Hydric Soil Indicators: Histos (A1)	Hydric Soil Indicators: Histosci (A1)	5-12	10YR 7/	1 90	10YR 5/6	10	С	PL	Clay Loam	contains m	arl
Hydric Soil Indicators: Histos (A1)	Hydric Soil Indicators: Histos (A1)										
Histos (A1) Sandy Gleyed Matrix (54) Goast Prairie Redox (A16) Goast Prairie Redox (A11) Goast Prairie Redox (A12) Goast Prairie Redox (A11) Goast Prairie Redox (A12) Goast Prairie Redox (A11) Goast Prairie Redox (A12) Goast Prairie R	Tydric Soil Indicators:										
Hydric Soil Indicators: Histos (A1)	Hydric Soil Indicators: Histos (A1)	Type: C=Concent	tration. D=Dep	letion, RM=Reduc	ced Matrix, CS=Cover	ed or Coa	ted Sand Gr	ains.	² Location: PL=Pore Li	nina. M=Matrix.	
Heite: Epigedom (A2)	Histic Epiperdon (A2) Sandy Redox (S5)										ic Soils ³ :
Histic (A3) Sandy Redox (S5) Dark Surface (S7) Dark Surface (S7) Progression (S1) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (TF12) 2 cm Muck (A10) Depleted Matrix (F2) Depleted Matrix (F2) Depleted Matrix (F2) Depleted Matrix (F3) Depleted Dark Surface (A11) Redox Dark Surface (F6) Redox Dark Surface (F7) Sandy Muck Mineral (S1) Depleted Dark Surface (F7) Sandy Muck Mineral (S1) Depleted Dark Surface (F7) Sandy Muck Mineral (S1) Redox Depressions (F8) Redox Depressions (F8) Redox Depressions (F8) Hydric Soil Present? Yes No No No Note Present? No No Note Present? No No Note Present? No No Depth (inches): No No Depth (inches): No Peth (Inches): No No Depth (inches): No Peth (Inches): No No Depth (inches): No Peth (Inches): No Pet	Flistic (Appleador (Appleador (SP) Sandry Redox (SS) Dark Surface (S7) Indicators (SP) Indicators (Managanese Masses (F12) Sandry Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (TF12) 2 cm Muck (A10) Very Depleted Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F6) Sandry Muck Mineral (S1) Redox Dark Surface (F7) Sandry Muck Mineral (S1) Redox Dark Surface (F7) Sandry Muck Mineral (S1) Redox Dark Surface (F7) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Nestrictive Layer (10 beerved): Type: Depth (inches): Hydric Soil Present? Yes • No	_ ` ′			Sandy Gleyed	l Matrix (S	4)		Coast Prairie Re	dox (A16)	
Stripped Matrix (S6) Stripped Matrix (S6) Iron Manganese Masses (F12) Stratified Layers (A5) Loamy Mudy Mineral (F1) Very Shallow Dark Surface (F12) Very Shallow	Stripped Matrix (S6) Loamy Muky Mineral (F1) Loamy Muky Mineral (F1) Loamy Muky Mineral (F1) Loamy Muky Mineral (F1) Very Shallow Dark Surface (TF12) Very Shallow Dark Surface (. ,		Sandy Redox	(S5)				. ,	
Stratified Layers (A5) Loamy Wordy Mineral (F1) Loamy Wordy Martix (F2) 2 cm Muck (A10) Depleted Bow Dark Surface (A11) Thick Dark Surface (A12) Depleted Bow Dark Surface (A11) Thick Dark Surface (A12) Depleted Bow Dark Surface (A11) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Muck Mineral (S1) S cm Muck Peet or Peat (S3) Redox Depressions (F8) S cm Muck Peet or Peat (S3) Set include Surface (F7) Secondary Indicators (minimum of two required Surface (F7) Drainage Patterns (B10) Dra	Stratified Layers (A5)		•		Stripped Matı	ix (S6)			`	•	
2 cm Muck (A10)	2 cm Muck (A10)				Loamy Mucky	Mineral (F1)			. ,	
Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F6) Sandy Muck Mineral (S1) S cm Mucky Peat or Peat (S3) Redox Depressions (F8) Wetland Hydrology must be present, unless disturbed or problematic. Pype:	Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Som Mucky Peat or Peat (S3) Redox Depressions (F8) Redox Depressions (F8) Indicators of hydrophytic vegetation and vectand hydrology must be present, unless disturbed or problematic. Page 1	= '	` '		Loamy Gleyed	d Matrix (F	2)			•	2)
Depleted Below Dark Surface (A11)	Depleted Below Dark Surface (A11)	2 cm Muck (A	A10)		✓ Depleted Mat	rix (F3)			Other (Explain	n Remarks)	
Thick Dark Surface (A12)	Thick Dark Surface (A12)	Depleted Belo	ow Dark Surfac	e (A11)		. ,	5)				
Seturation (A3) Redox Depressions (F8) wetland hydrology must be present, unless disturbed or problematic. Page Redox Depressions (F8) wetland hydrology must be present, unless disturbed or problematic. Page Redox Depressions (F8) Wetland Hydrology must be present, unless disturbed or problematic. Page Redox Depressions (F8) Wetland Hydrology must be present, unless disturbed or problematic. Page Redox Depressions (F8) Wetland Hydrology must be present, unless disturbed or problematic. Page Redox Depressions (F8) Wetland Hydrology must be present, unless disturbed or problematic. Page Redox Depressions (F8) Wetland Hydrology must be present, unless disturbed or problematic. Page Redox Depressions (F8) Wetland Hydrology must be present, unless disturbed or problematic. Page Redox Depressions (F8) Wetland Hydrology must be present, unless disturbed or problematic. Page Redox Depressions (F8) Wetland Hydrology must be present, wetland hydrology must be present, purplemanics. Page Redox Depressions (F8) Wetland Hydrology must be present, purplemanics. Page Redox Depressions (F8) No	Secondary Mote Pinter of (S1) Redox Depressions (F8) wetland hydrology must be present, unless disturbed or problematic. Page	Thick Dark Su	urface (A12)			•	•		3 - 11		
setrictive Layer (if observed): Type: Depth (inches): Wetland Hydrology Indicators: Surface Water (A1)	Som Mucky Peat or Peat (\$3) No	Sandy Muck I	Mineral (S1)				. ,		Indicators of hyd	rophytic vegetatio	on and
Type:	Type:	5 cm Mucky F	Peat or Peat (S	3)	Redox Depre	SSIOLIS (FO)				
Per Mydric Soil Present? Yes No Present? Yes No Present	Pipenth (inches):	Restrictive Laye	er (if observed	i):							
VPROLOGY	Pythand Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) True Aquatic Plants (B14) Dry Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Jeron Deposits (B5) Thin Muck Surface (C7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Wetland Hydrology Present? Yes No Depth (inches): Jerface Water Present? Yes No Depth (inches): Jescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Туре:									
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YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Dry Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Wetland Hydrology Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Netland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) High Water Table (A2) Water Marks (B1) Water Marks (B1) Drift Deposits (B3) Drift Deposits (B3) Drift Deposits (B3) Drift Deposits (B5) Innudation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Depth (inches): Water Table Present? Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Remarks:									
Vetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Wetland Hydrology Present? Yes No Depth (inches): Depth (inches): Destrict Reductions in previous inspections), if available:	Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:										
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Surface Water (A1)	Surface Water (A1)	-			check all that apply)				Secondary In	dicators (minimur	n of two required
High Water Table (A2)	High Water Table (A2)	_				ad Laavas	(RQ)			·	
Saturation (A3)	Saturation (A3) True Aquatic Plants (B14) Dry Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Depth (inches): Dep	_	. ,		_		5 (69)		_	, ,	
Water Marks (B1)	Water Marks (B1)		. ,			` '	D4.4\			, ,	22.
Sediment Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Depth (inches): Water Table Present? Yes No Depth (inches): De	Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Thin Muck Surface (C7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) FAC-Neutral Test (D5) Teld Observations: Urface Water Present? Ves No Depth (inches): Depth (inches): Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5) Depth (inches): Wetland Hydrology Present? Yes No No No No Depth (inches): Saturation Present? Yes No No No Depth (inches): Saturation Present? Yes No	_	-								.2)
Drift Deposits (B3)	Drift Deposits (B3)	_								` ,	
Algal Mat or Crust (B4)	Algal Mat or Crust (B4)				✓ Oxidized Rh	izosphere	s on Living	Roots (C3)			
☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Gauge or Well Data (D9) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Other (Explain in Remarks) Field Observations: Furface Water Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Facturation Present? Yes ☐ No ⑥ Depth (inches): Factured Test (D5) FAC-Neutral Test (D5) FAC-Neutral Test (D5) FAC-Neutral Test (D5)	☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Gauge or Well Data (D9) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Other (Explain in Remarks) Field Observations: Furface Water Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): FAC-Neutral Test (D5) FAC-Neutral Test (D5) FAC-Neutral Test (D5) FAC-Neutral Test (D5)	Drift Deposits	s (B3)		Presence of	Reduced	Iron (C4)		Stunted o	r Stressed Plants	(D1)
Inundation Visible on Aerial Imagery (B7)	☐ Inundation Visible on Aerial Imagery (B7) ☐ Gauge or Well Data (D9) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Other (Explain in Remarks) Field Observations: Furface Water Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Table Present? Yes ☐ No ⑥ Depth (inches): Furface Water Present? Yes ☐ No ⑥ Depth (Algal Mat or (Crust (B4)		Recent Iror	Reduction	n in Tilled S	oils (C6)	Geomorp	nic Position (D2)	
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Sield Observations: Surface Water Present? Yes No Depth (inches): Vater Table Present? Yes No Depth (inches): Signification Present? Yes No Depth (inches): Signification Present? Yes No Depth (inches): Signification Present? Yes No Depth (inches): Secribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Sield Observations: Surface Water Present? Yes No Depth (inches): Vater Table Present? Yes No Depth (inches): Signification Present? Yes No Depth (inches): Signification Present? Yes No Depth (inches): Signification Present? Yes No Depth (inches): Secribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Iron Deposits	s (B5)		Thin Muck	Surface (C	7)		✓ FAC-Neut	ral Test (D5)	
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Security of the present of the pres	Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Inundation Vi	isible on Aerial	Imagery (B7)	☐ Gauge or W	/ell Data (D9)				
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Staturation Present? Yes No Depth (inches): Staturation Present? Yes No Depth (inches): Security Present? Yes No Depth (inches): Security Present? Yes No Depth (inches): Security Present? Wetland Hydrology Present? Yes No Security Present? Yes No Security Present? No Security Present? No Security Present? Yes No Security Present? Yes No Security Present? No Security Present? Yes No Security Present? Yes Security Pr	Surface Water Present? Yes No Depth (inches):	Sparsely Vege	etated Concave	Surface (B8)	Other (Expl	ain in Ren	narks)				
Vater Table Present? Yes No Depth (inches): Vater Table Present? Y	Vater Table Present? Yes No Depth (inches):										
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Sincludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water Table Present? Yes No Depth (inches):			res O No 🗨	Denth (in	rhes):					
Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No	Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No No Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				-1 (
rescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		_) Jopan (Wet	land Hydrology Preser	it? Yes 💿	No \bigcirc
		includes capillary	/ fringe) Y					_			
demarks:	Remarks:	Describe Record	ied Data (stre	am gauge, moi	nitoring well, aerial	photos,	previous i	nspection	s), if available:		
Cilians.	ACTIONS.	Pomarke:									
		cillai KS.									

US Army Corps of Engineers Midwest Region - Version 2.0

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 64 Acres, Blue Lake Campo	ground, Smith Township	City/County	y: Whitley Cou	nty	Sampling Date:	11-Nov-14
Applicant/Owner: All American RV Resor	rts I, LLC.		State:	_INSa	ampling Point:	2
Investigator(s): Jacob Bannister and Mo	olly Baughman	Section,			2N R 10E	
Landform (hillslope, terrace, etc.): Shoul	lder slope		Local relief (c	concave, convex, none	e): convex	_
		Long	u :		Datum:	
			3		-iCti N	
Soil Map Unit Name: Martisco muck,		Yes No (/If no. e	NWI class xplain in Remarks.)	mcauon: <u>None</u>	
Are climatic/hydrologic conditions on the				. ,	nresent? Yes	No O
Are Vegetation , Soil ,	, , , , , , , , , , , , , , , , , , , ,	3,		ormal Circumstances"	present.	/ NO C
Are Vegetation, Soil SUMMARY OF FINDINGS - A	, or Hydrology	,,,	•	ded, explain any answ	,	- etc.
		10111113 22111P11113 L		113, 414.132.2.2.,		, etc.
Hydrophytic Vegetation Present?	Yes No No		s the Sampled A	\rea		
Hydric Soil Present?	Yes No O		vithin a Wetland		•	
Wetland Hydrology Present?	Yes ○ No ●					
Remarks:						
VEGETATION - Use scien	ntific names of n	lanta				
VEGETATION - OSE SCIE	Illiic Hairies or p	——— Specie	es? ———	·		
Tree Stratum(Plot size:)		rat. Indicator	Dominance Test	worksheet:	
1.			er Status 0%	Number of Domina That are OBL, FAC		2 (A)
2				Illat are Obe, i Ac.	//, 01 FAC	<u>Z</u> (A)
3				Total Number of Do Species Across All S		2 (B)
4.			0%	Species Across Air s		<u>Z</u> (b)
5.			0%	Percent of domin		0 00/ (A/D)
		0 = Total	Cover	That Are OBL, FA	ACW, or FAC:	0.0% (A/B)
<u>Sapling/Shrub Stratum (</u> Plot size:)			Prevalence Index	worksheet:	
1		00.0	0%	Total % Co	over of: Multiply b	y:
2		0	0%	OBL species	0 x 1 =	0
3)%	FACW species	30 x 2 =	60
4			0%	FAC species		105
5		0		FACU species	5 x 4 =	20
<u>Herb Stratum</u> (Plot size: 5 ft.)	0 = Total	Cover	UPL species	x 5 =	0
1. Poa pratensis		30	9% FAC	Column Totals:	<u>70</u> (A)	<u>185</u> (B)
2. Phalaris arundinacea		30	9% FACW	Prevalence I	$ndex = B/A = \underline{2}$.	643_
3. Taraxacum officinale				Hydrophytic Vege	etation Indicators:	
4. Plantago major					for Hydrophytic Veget	ation
5				I — ·	e Test is > 50%	
6 7.			0%	✓ 3 - Prevalence	e Index is ≤3.0 1	
0			0% 0%	4 - Morpholog	jical Adaptations ¹ (Pro	vide supporting
9.			0%	data in Remar	rks or on a separate she	eet)
10.			0%	☐ Problematic H	lydrophytic Vegetation	¹ (Explain)
		70 = Total			ydric soil and wetland h	
Woody Vine Stratu (Plot size:				be present, unies	ss disturbed or problem	atic.
1,			<u> </u>	Hydrophytic		
2			0%	Vegetation	Yes No	
		0 = Total	Cover	Present?	res 🙂 🔞 🔾	
Remarks: (Include photo numbers	here or on a separat	te sheet.)				

SOIL Sampling Point: 2

Profile Desc	ription: (De	scribe to	the depth n	eeded to documer	t the ind	icator or c	onfirm th	e absence of indicators.)	
Depth	Calas (Matrix			dox Featu		1 2		Damasila.
(inches) 0-4	Color (1		<u>%</u>	Color (moist)	<u>%</u>	Type 1	Loc ²	Texture Clay	Remarks
		5/4						· -	
0-4	10YR	3/2					-	Silty Clay	
4-12	10YR	5/4					-	Clay	
4-12	10YR	2/1	20					Silt Loam	
12-18	10YR	5/4	75	10YR 5/8	5	С	М	Clay	
12-18	10YR	2/1	30					Silt Loam	
18-20	10YR	2/1	100					Silt Loam	
10 20	10110							Site Edulii	
1 Tymou C—Cou		- Donlotio		ad Matrix CC_Cayor	Coo	tod Cond C		21 agations DI - Dave Lining M-	Matrix
· · ·	Indicators:	=Depletioi	i, RM=Reduc	ed Matrix, CS=Cover	eu or coa	teu Sanu Gi	dilis.	² Location: PL=Pore Lining. M=	
Histosol				Sandy Gleyed	l Matriy (S	(4)		Indicators for Problemat	ic Hydric Soils ³ :
	ipedon (A2)			Sandy Redox	-	'1)		Coast Prairie Redox (A1	6)
Black His	,			Stripped Mati	. ,			Dark Surface (S7)	
	n Sulfide (A4)			Loamy Mucky	. ,	E1\		☐ Iron Manganese Masses	; (F12)
Stratified	l Layers (A5)			Loamy Gleyed				Very Shallow Dark Surfa	ace (TF12)
2 cm Mu	ck (A10)			Depleted Mat	-	-2)		Other (Explain in Remar	·ks)
Depleted	Below Dark S	Surface (A:	11)	Redox Dark S	. ,	5)			
☐ Thick Da	rk Surface (A:	12)		Depleted Dar	•	,		3	
☐ Sandy M	uck Mineral (S	51)		Redox Depres		. ,		Indicators of hydrophytic wetland hydrology mu	vegetation and st be present.
5 cm Mu	cky Peat or Pe	eat (S3)		Redox Depre	5510115 (1 0)	,		unless disturbed or p	
Restrictive I	Layer (if obs	erved):							
Type: _									
Depth (in	ches):							Hydric Soil Present? Y	es O No 💿
Remarks:									
HYDROL	OGY								
Wetland Hy	drology Indi	cators:							
Primary Indic	cators (minimu	um of one	is required; o	heck all that apply)				Secondary Indicators	(minimum of two required
Surface \	Water (A1)			Water-Stair	ned Leaves	s (B9)		Surface Soil Crack	rs (B6)
High Wa	ter Table (A2))		Aquatic Fau	ına (B13)			☐ Drainage Patterns	(B10)
Saturation	on (A3)			True Aquat	ic Plants (I	B14)		☐ Dry Season Water	· Table (C2)
☐ Water M	arks (B1)			Hydrogen S	Sulfide Odd	or (C1)		Crayfish Burrows	(C8)
Sedimen	t Deposits (B2	2)		Oxidized Rh	nizosphere	s on Living	Roots (C3)	Saturation Visible	on Aerial Imagery (C9)
Drift Dep	oosits (B3)			Presence of	Reduced	Iron (C4)		Stunted or Stresse	ed Plants (D1)
Algal Ma	t or Crust (B4)		Recent Iror	Reduction	n in Tilled S	oils (C6)	Geomorphic Positi	ion (D2)
Iron Dep	osits (B5)			Thin Muck	Surface (C	. 7)		▼ FAC-Neutral Test	(D5)
Inundati	on Visible on A	Aerial Imag	gery (B7)	☐ Gauge or W	/ell Data (D9)			
Sparsely	Vegetated Co	ncave Sur	face (B8)	Other (Expl	ain in Rem	narks)			
									_
Field Observ Surface Wate		Yes	○ No ●) Depth (in	ches):				
		Yes		` `					
Water Table Saturation Pr				2 opt (ches):		_ Wet	land Hydrology Present?	Yes ○ No •
(includes cap		Yes	○ No	Depth (in	ches):		_	, ,,	
Describe Re	corded Data	(stream	gauge, mor	nitoring well, aerial	photos,	previous i	nspection	s), if available:	
Remarks:									
No indicator	rs of wetland	d hydrolog	gy were obs	erved.					

US Army Corps of Engineers Midwest Region - Version 2.0

WETLAND DETERMINATION DATA FORM - Midwest Region

Solid Soli	Project/Site: 64 Acres, Blue Lake Camp	ground, Smith Township	City/Count	ty: Whitley Cou	nty	Sampling Date:	11-Nov-14
Investigator(s): <u>Incote Bandeter and Melly Baughman</u> Section, Township, Range: S 10 T 22N R 10E	Applicant/Owner: All American RV Reso	orts I, LLC.		State:			
Soling Dodo Dodo Soling Dodo Dod	Investigator(s): Jacob Bannister and Mo						
Solid Map this Name	Landform (hillslope, terrace, etc.): Lowl	and		Local relief (c	concave, convex, none;): concave	
We described we demarks Houghton muck. drained We demarks Houghton muck. drained We demarks We demarks We demarks We demarks We septation Soil Or Hydrology ganificantly disturbed? Are "Normal Groumstances" present? Yes ® No No We Vegetation Soil Or Hydrology ganificantly disturbed? We vegetation We vegetation Soil Or Hydrology ganificantly disturbed? We vegetation We vegetation We vegetation We vegetation Soil Or Hydrology Ganificantly disturbed? We vegetation We vegetati			Lor			Datum:	
the climatic/hydrologic conditions on the site typical for this time of year? Yes ● No ○ Interveleptation │ , Soil │ , or Hydrology │ significantly disturbed? Are Normal Circumstances* present? Yes ● No ○ Interveleptation │ , Soil │ , or Hydrology │ reaturally problematic? (If reeded, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes ● No ○ Is the Sampled Area within a Wettand? Yes ● No ○ Wetsiand Hydrology Present? Yes ● No ○ Wetsiand Hydrology Present? Yes ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wettand? Ves ● No ○ Is the Sampled Area within a Wett				· · · · · · · · · · · · · · · · · · ·			
Are Vegetation			Yes O No	(If no. e)		ucgnou: AEMID	
Summary OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.						Vac 🕞	No O
Summary OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.		, , , , , , , , , , , , , , , , , , , ,	-			or eserre.	INO C
Hydrophyric Vegetation Present? Yes	5 — , —			`	, , ,	,	etc.
Is the Sampled Area within a Wetland? Yes		<u> </u>					
Wetshard Hydrology Present? Yes],	is the Sampled /	Area		
VEGETATION - Use scientific names of plants.	•				d? Yes • No	C	
Tree Stratum (Plot size: 30 ft)		Yes ♥ No ∪					
Absolute Species Total (Cover Status Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)	Remarks:						
Absolute Species Total (Cover Status Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)							
Absolute Species Total (Cover Status Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)							
Absolute Species Total (Cover Status Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)	VECETATION - Use scie	entific names of nla	nte Domi				
Tree Stratum (Plot size: 30 ft)	VEGETATION 300 00.0	Titille Harries St. p.s.	Speci	ies? ———	T Daminanca Tost w		
1. Populus deltoides	<u>Tree Stratum</u> (Plot size: 30 ft	_)					
2.							3 _ (A)
3.	2.		0 0.0	0%	·		
4.	2			0%			3 (B)
Sablino/Shrub Stratum (Plot size:)	-		=-	0%			• • • • • • • • • • • • • • • • • • • •
Saulino/Shrub Stratum (Plot size: 1	5		00.	0%			ι 0% (A/B)
1.			80 = Total	l Cover	That Are Obl, I A	LW, OF FAC.	1070 (-7-7
2.					Prevalence Index	worksheet:	
3.	_						
4.					•		
5.	4				· ·		
Herb Stratum (Plot size: 5 ft.)					· ·		
Herb Stratum (Plot size: 5 ft. 1 Urtica dioica 30	-				'		
2. Leersia virginica 20 ✓ 36.4% FACW Prevalence Index = B/A = 2.593 3. Persicaria pensylvanica 5 9.1% FACW 4. 0 0.0% Hydrophytic Vegetation Indicators: ✓ 1 - Rapid Test for Hydrophytic Vegetation ✓ 2 - Dominance Test is > 50% ✓ 3 - Prevalence Index is ≤ 3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 9. 0 0.0% 10. 0 0.0% Woody Vine Stratu (Plot size:) 0 0.0% 1. 0 0.0% 2. 0 0.0% 0 = Total Cover Hydrophytic Vegetation Indicators: ✓ 1 - Rapid Test for Hydrophytic Vegetation ✓ 2 - Dominance Test is > 50% ✓ 3 - Prevalence Index is ≤ 3.0 ¹ 1 - Hydrophytic Vegetation 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% ✓ 3 - Prevalence Index is ≤ 3.0 ¹ 1 - Ripid Test for Hydrophytic Vegetation 1 - Ripid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is in Hydrophytic Vegetation <td< td=""><td></td><td>)</td><td></td><td></td><td>· '</td><td></td><td></td></td<>)			· '		
3. Persicaria pensylvanica 4.	,				Column Totals:	135 (A)	<u>350</u> (B)
4.					Prevalence In	idex = B/A = <u>2.5</u>	593_
5.					Hydrophytic Veget	tation Indicators:	
6.					✓ 1 - Rapid Test	for Hydrophytic Vegeta	ition
7. 8. 9. 10. Woody Vine Stratu (Plot size:) 1. 2. 0 0 0.0% 0 0.0% 0 0.0% 0 0.0% 55 = Total Cover 0 0.0% 0 0.0% 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation 1 (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Yes No ○					✓ 2 - Dominance	Test is > 50%	
8.	7				✓ 3 - Prevalence	Index is \leq 3.0 1	
9.	0				4 - Morphologi	cal Adaptations 1 (Prov	vide supporting
10. Woody Vine Stratu (Plot size: 1. 2. 0 0.0% 55 = Total Cover 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes No \(\)	0			0%			
Woody Vine Stratu (Plot size:)	10.		0 0.0	0%	l .		
1.	Weeks Mark Charles (Diot size)		55 = Total	l Cover			
2. O O.0% Hydrophytic Vegetation Present? Yes No O			0	00%	be present, united	distarbed of problems	rcic.
0 = Total Cover Vegetation Yes • No ·							
<u> </u>	Z					'es • No O	
				Covei	r resent:		
	Demarks (Include abote numbers	. have or on a constate	about \				

Profile Description: (Des	Matrix	шорин но		dox Featu	ıres					
(inches) Color (i		%	Color (moist)	<u>%</u>	Type 1	Loc2	Tex	ture		Remarks
0-8 10YR	2/2	95	7.5YR 4/4	5	С	М	Silt Loam			
				-						
				-						
							-			
		— –		- ——						
				-						
Type: C=Concentration, D	=Depletion, R	M=Reducer	d Matrix, CS=Cover	ed or Coat	ted Sand Gr	ains.	² Location: I	PL=Pore Lining	M=Matrix.	
Hydric Soil Indicators:								ors for Proble		c Soile ³ ·
Histosol (A1)			Sandy Gleyed	l Matrix (S	4)				-	C Solis .
Histic Epipedon (A2)			Sandy Redox		•			t Prairie Redox	(A16)	
Black Histic (A3)			Stripped Matr	rix (S6)				Surface (S7)		
Hydrogen Sulfide (A4)			Loamy Mucky	/ Mineral (F	F1)			Manganese Ma		
Stratified Layers (A5)			Loamy Gleyed				`	Shallow Dark S	•)
2 cm Muck (A10)			Depleted Mati	rix (F3)			Othe	er (Explain in Re	emarks)	
Depleted Below Dark S	, ,		✓ Redox Dark S	Surface (F6	5)					
Thick Dark Surface (A1	•		Depleted Dark	k Surface ((F7)		³ Indica	tors of hydroph	vtic vegetatio	n and
Sandy Muck Mineral (S	-		Redox Depres	ssions (F8))		wet	tland hydrology	must be pres	sent,
5 cm Mucky Peat or Pe							ur I	nless disturbed	or problemati	С.
	erved):									
Restrictive Layer (if obs										
Type:							Hvdric So	nil Present?	Yac 💿	No O
			_				Hydric So	oil Present?	Yes •	No O
Type:							Hydric So	oil Present?	Yes ⊙	No O
Type:							Hydric So	oil Present?	Yes •	No O
Type: Depth (inches): Remarks: IYDROLOGY Wetland Hydrology Indi							Hydric So	oil Present?	Yes •	No O
Type: Depth (inches): Remarks: IYDROLOGY Wetland Hydrology Indi Primary Indicators (minimum)		equired; che	eck all that apply)							No O
Type: Depth (inches): Remarks: IYDROLOGY Wetland Hydrology Indi Primary Indicators (minimum) Surface Water (A1)	um of one is re	≥quired; che	Water-Stain		s (B9)			condary Indica Surface Soil C	tors (minimur Tracks (B6)	
Type: Depth (inches): Remarks: IYDROLOGY Vetland Hydrology Indi Primary Indicators (minimum of the surface Water (A1) High Water Table (A2)	um of one is re	equired; che	Water-Stain Aquatic Fau	ına (B13)	. ,			condary Indica Surface Soil C Drainage Patt	tors (minimur Tracks (B6) erns (B10)	n of two required
Type:	um of one is re	equired; che	Water-Stain Aquatic Fau True Aquati	ına (B13) ic Plants (E	314)			condary Indica Surface Soil C Drainage Patt Dry Season W	tors (minimur iracks (B6) erns (B10) /ater Table (C	n of two required
Type:	um of one is re	equired; che	Water-Stain Aquatic Fau True Aquati Hydrogen S	ına (B13) ic Plants (E Sulfide Odo	314) or (C1)			condary Indica Surface Soil C Drainage Patt Dry Season W Crayfish Burro	tors (minimur iracks (B6) erns (B10) /ater Table (C ws (C8)	n of two required
Type:	um of one is re	equired; che	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh	una (B13) ic Plants (E Sulfide Odo nizospheres	314) or (C1) s on Living I	Roots (C3)		condary Indica Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis	tors (minimur iracks (B6) erns (B10) /ater Table (C ows (C8) ible on Aerial	n of two required 2) Imagery (C9)
Type:	um of one is re	equired; che	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of	una (B13) ic Plants (E Sulfide Odo nizospheres f Reduced	314) or (C1) s on Living I Iron (C4)	. ,		condary Indica Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or St	tors (minimur Fracks (B6) erns (B10) Fater Table (C bws (C8) sible on Aerial ressed Plants	n of two required 2) Imagery (C9)
Type:	um of one is re	≥quired; che	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron	ina (B13) ic Plants (E Sulfide Odo nizospheres f Reduced in Reduction	314) or (C1) s on Living I Iron (C4) n in Tilled S	. ,		condary Indica Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or St Geomorphic F	tors (minimur cracks (B6) erns (B10) /ater Table (C ows (C8) cows (C8) cressed Plants cosition (D2)	n of two required 2) Imagery (C9)
Type:	um of one is re		Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S	una (B13) ic Plants (E Sulfide Odo nizospheres f Reduced in Reduction Surface (Ci	314) or (C1) s on Living I Iron (C4) n in Tilled So 7)	. ,		condary Indica Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or St Geomorphic F	tors (minimur cracks (B6) erns (B10) /ater Table (C ows (C8) cible on Aerial ressed Plants Position (D2)	n of two required 2) Imagery (C9)
Type:	um of one is re 2) Aerial Imagery	v (B7)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	una (B13) ic Plants (E Sulfide Odo nizospheres f Reduced in Reduction Surface (Ci Vell Data (I	314) or (C1) s on Living I Iron (C4) n in Tilled S 7)	. ,		condary Indica Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or St Geomorphic F	tors (minimur cracks (B6) erns (B10) /ater Table (C ows (C8) cible on Aerial ressed Plants Position (D2)	n of two required 2) Imagery (C9)
Type:	um of one is re 2) Aerial Imagery	v (B7)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S	una (B13) ic Plants (E Sulfide Odo nizospheres f Reduced in Reduction Surface (Ci Vell Data (I	314) or (C1) s on Living I Iron (C4) n in Tilled S 7)	. ,		condary Indica Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or St Geomorphic F	tors (minimur cracks (B6) erns (B10) /ater Table (C ows (C8) cible on Aerial ressed Plants Position (D2)	n of two required 2) Imagery (C9)
Type:	um of one is re 2) Aerial Imagery	v (B7)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W	una (B13) ic Plants (E Sulfide Odo nizospheres f Reduced in Reduction Surface (Ci Vell Data (I	314) or (C1) s on Living I Iron (C4) n in Tilled S 7)	. ,		condary Indica Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or St Geomorphic F	tors (minimur cracks (B6) erns (B10) /ater Table (C ows (C8) cible on Aerial ressed Plants Position (D2)	n of two required 2) Imagery (C9)
Type:	um of one is re 2) Aerial Imagery oncave Surface	r (B7) e (B8)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	una (B13) ic Plants (E Sulfide Odo nizospheres f Reduced in Reduction Surface (Ci Vell Data (I Jain in Rem	314) or (C1) s on Living I Iron (C4) n in Tilled S 7)	. ,		condary Indica Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or St Geomorphic F	tors (minimur cracks (B6) erns (B10) /ater Table (C ows (C8) cible on Aerial ressed Plants Position (D2)	n of two required 2) Imagery (C9)
Type:	um of one is re 2) Aerial Imagery oncave Surface	(B7) e (B8) No •	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	una (B13) ic Plants (E Sulfide Odo nizospheres f Reduced n Reduction Surface (C) Vell Data (I lain in Rem	314) or (C1) s on Living I Iron (C4) n in Tilled S 7) D9) narks)	. ,		condary Indica Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or St Geomorphic F	tors (minimur cracks (B6) erns (B10) /ater Table (C ows (C8) cible on Aerial ressed Plants Position (D2)	n of two required 2) Imagery (C9)
Type:	2) Aerial Imagery oncave Surface Yes Yes	(B7) e (B8) No • No •	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	una (B13) ic Plants (E Sulfide Odo nizospheres f Reduced n Reduction Surface (C) Vell Data (I lain in Rem	314) or (C1) s on Living I Iron (C4) n in Tilled S 7) D9) narks)	pils (C6)		condary Indica Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or St Geomorphic F FAC-Neutral T	tors (minimur iracks (B6) erns (B10) /ater Table (C ows (C8) iible on Aerial ressed Plants Position (D2) Test (D5)	n of two required (2) Imagery (C9) (D1)
Type:	um of one is re 2) Aerial Imagery oncave Surface	(B7) e (B8) No •	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	una (B13) ic Plants (E Sulfide Odo nizospheres f Reduced n Reduction Surface (C: Vell Data (I lain in Rem ches):	314) or (C1) s on Living I Iron (C4) n in Tilled S 7) D9) narks)	pils (C6)		condary Indica Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or St Geomorphic F	tors (minimur cracks (B6) erns (B10) /ater Table (C ows (C8) cible on Aerial ressed Plants Position (D2)	n of two required 2) Imagery (C9)
Type:	2) Aerial Imagery oncave Surface Yes Yes Yes Yes	(B7) 2 (B8) No No No No No	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	ina (B13) ic Plants (E Sulfide Odo nizospheres f Reduced n Reduction Surface (Ci Vell Data (I lain in Rem ches): ches):	314) or (C1) s on Living I Iron (C4) n in Tilled S 7) D9) narks)	oils (C6)	Se	condary Indica Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or St Geomorphic F FAC-Neutral T	tors (minimur iracks (B6) erns (B10) /ater Table (C ows (C8) iible on Aerial ressed Plants Position (D2) Test (D5)	n of two required (2) Imagery (C9) (D1)
Type:	2) Aerial Imagery oncave Surface Yes Yes Yes Yes	(B7) 2 (B8) No No No No No	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	ina (B13) ic Plants (E Sulfide Odo nizospheres f Reduced n Reduction Surface (Ci Vell Data (I lain in Rem ches): ches):	314) or (C1) s on Living I Iron (C4) n in Tilled S 7) D9) narks)	oils (C6)	Se	condary Indica Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or St Geomorphic F FAC-Neutral T	tors (minimur iracks (B6) erns (B10) /ater Table (C ows (C8) iible on Aerial ressed Plants Position (D2) Test (D5)	n of two required (2) Imagery (C9) (D1)
Type:	2) Aerial Imagery oncave Surface Yes Yes Yes Yes	(B7) 2 (B8) No No No No No	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	ina (B13) ic Plants (E Sulfide Odo nizospheres f Reduced n Reduction Surface (Ci Vell Data (I lain in Rem ches): ches):	314) or (C1) s on Living I Iron (C4) n in Tilled S 7) D9) narks)	oils (C6)	Se	condary Indica Surface Soil C Drainage Patt Dry Season W Crayfish Burro Saturation Vis Stunted or St Geomorphic F FAC-Neutral T	tors (minimur iracks (B6) erns (B10) /ater Table (C ows (C8) iible on Aerial ressed Plants Position (D2) Test (D5)	n of two required (2) Imagery (C9) (D1)

Project/Site: 64 Acres, Blue Lake Camp	ground, Smith Township	p City/County:	Whitley Cour	nty	Sampling Date:	11-Nov-14
Applicant/Owner: All American RV Reso	orts I, LLC.		State:	<u>IN</u> S	Sampling Point:	
Investigator(s): Jacob Bannister and Mc				: S 10 T 3	-	
Landform (hillslope, terrace, etc.): Mour	nd		Local relief (d	concave, convex, non	ne): convex	_
Slope: 0.0% 0.0 • Lat.:			- •		Datum:	
Soil Map Unit Name: Houghton muc					ssification: PEM1B	
Are climatic/hydrologic conditions on the		f years Yes No C) (If no. e)	xplain in Remarks.)	SIIICAUOII. PEIVIID	
Are Climatic/nydrologic conditions on the Are Vegetation $\ \square$, Soil $\ \square$, or Hydrology				" nresent? Yes	No O
	, , , , , , , , , , , , , , , , , , , ,			ormal Circumstances"	present.) NO C
Are Vegetation, Soil SUMMARY OF FINDINGS - A	, or Hydrology Attach site map s	, , , , , , , , , , , , , , , , , , , ,	•	ns, transects, i	,	. etc.
Hydrophytic Vegetation Present?	Yes O No •					•
Hydric Soil Present?	Yes O No •		the Sampled A		_	
Wetland Hydrology Present?	Yes O No •	wit	thin a Wetland	d? Yes ○ No	•	
	163 0 110 0					
Remarks:						
VEGETATION - Use scie	entific names of p					
		Absolute Rel.Stra	s? ———— at. Indicator	Dominance Test	worksheet:	
<u>Tree Stratum</u> (Plot size: 30 ft)	% Cover Cover	Status	Number of Domina	ant Species	
1. Populus deltoides		10 100.0		That are OBL, FAC		2 (A)
2				Total Number of D	Dominant	
3				Species Across All	Strata:	4 (B)
4				Percent of domi	nant Species	
5				That Are OBL, F.).0% (A/B)
Sapling/Shrub Stratum (Plot size:)		Ovei	Prevalence Index	v workshoot:	
1.		0 0.0%	%	Total % Co		w.
2.		0		OBL species	0 x 1 =	0
3.		0 0.0%	6	FACW species	0 x 2 =	0
4.		0 0.0%	6	FAC species		120
5		00.0%	о́	FACU species	<u>35</u> x 4 =	140
<u>Herb Stratum</u> (Plot size: 5 ft.)	0 = Total C	over	UPL species	<u>30</u> x 5 =	150
1. Alliaria petiolata		30 🗹 31.69	% FAC	Column Totals:	: <u>105</u> (A)	410 (B)
2. Solidago altissima		25 🗹 26.39		Prevalence '		.905
3. Rubus occidentalis		20 🗹 21.19	% UPL			.903
4. Fragaria vesca		10 10.59	% UPL	I	etation Indicators: st for Hydrophytic Veget	estion
		1010.59	% FACU	l — ·	ce Test is > 50%	ation
6		00.0%			ce Index is ≤3.0 ¹	
7					gical Adaptations 1 (Pro	wide supporting
8 9.				data in Rema	orks or on a separate she	eet)
10.		0 0.0%		Problematic I	Hydrophytic Vegetation	¹ (Explain)
		95 = Total C			nydric soil and wetland h	
_Woody Vine Stratu (Plot size:)		Ovei	be present, unle	ss disturbed or problem	atic.
1			<u>′o</u>	11d-ambutio		
2		0 0.0%		Hydrophytic Vegetation		
		0 = Total C	over	Present?	Yes ○ No •	
				1		
Remarks: (Include photo numbers	s here or on a separa	te sheet.)				

Depth Cole 0-14 10YF				Red	lox Featι	ıres					
0-14 10YF	or (moist)	%	Color (ı	moist)	%	Type 1	Loc ²	Texture		R	emarks
	2/2	100						Silt Loam	_		
14-20 10YF	2/2	99	7.5YR	4/4	1	С	М	Silt Loam			
								-			
ype: C=Concentratio	n, D=Depletion	, RM=Reduo	ed Matrix,	 CS=Covere	ed or Coa	 ted Sand Gr	ains.	² Location: PL=Po	ore Lining.	M=Matrix.	
ydric Soil Indicato	rs:			-				Indicators fo	or Proble	matic Hydric	Soils ³ :
Histosol (A1)			San	ndy Gleyed	Matrix (S	4)		Coast Prai	rie Redov	(Δ16)	
Histic Epipedon (A	2)		San	ndy Redox ((S5)			Dark Surfa		(A10)	
Black Histic (A3)	(4.4)		Stri	ipped Matri	x (S6)			Iron Mano		ccoc (E12)	
☐ Hydrogen Sulfide	-		Loa	my Mucky	Mineral (F1)			•	` ,	
Stratified Layers (15)		Loa	my Gleyed	Matrix (F	2)		_ ′		Surface (TF12)	
2 cm Muck (A10)			☐ Dep	pleted Matr	ix (F3)			Other (Ex	plain in Re	marks)	
Depleted Below Da	•	1)	Red	dox Dark Su	urface (F6	5)					
Thick Dark Surface	` ,		☐ Der	pleted Dark	Surface	(F7)		3 Indicators o	of hydroph	ytic vegetation	and
 ☐ Sandy Muck Miner ☐ 5 cm Mucky Peat (` '		Red	dox Depres	sions (F8))		wetland	hydrology	must be prese	ent,
estrictive Layer (if								unless	uistui Deu t	л ргошетанс	
•	observed).										
Tyne											
Type: Depth (inches):								Hydric Soil Pro	esent?	Yes 🔾	No 💿
Type:	c soils were o	observed.						Hydric Soil Pro	esent?	Yes O	No [©]
Depth (inches):	c soils were o	observed.						Hydric Soil Pr	esent?	Yes O	No •
Depth (inches):	c soils were (observed.						Hydric Soil Pr	esent?	Yes O	No •
Depth (inches): Remarks: Depth (inches): Depth (inche	Indicators:		heck all the	at anniv)							
Depth (inches):	I ndicators: nimum of one i					. (100)		Seconda	ary Indicat	ors (minimum	
Depth (inches): Demarks: Dindicators of hydrology Vetland Hydrology Trimary Indicators (mi Surface Water (A1)	I ndicators: nimum of one i		_ w	Vater-Staine		s (B9)		Seconda	ary Indicat ace Soil C	ors (minimum racks (B6)	
Depth (inches): Demarks: Dindicators of hydrology Vetland Hydrology Trimary Indicators (mi Surface Water (A1 High Water Table	I ndicators: nimum of one i		□ W	Vater-Staine quatic Faur	na (B13)	. ,		Seconda Surt	ary Indicat Face Soil C Finage Pattr	ors (minimum racks (B6) erns (B10)	of two required
Depth (inches): Demarks: Dindicators of hydrology Vetland Hydrology Trimary Indicators (mi Surface Water (A1 High Water Table Saturation (A3)	I ndicators: nimum of one i		☐ W ☐ Ad ☐ Ti	Vater-Staine quatic Faur rue Aquatio	na (B13) c Plants (E	B14)		Seconda Surf	ary Indicat face Soil C inage Pattr Season W	ors (minimum racks (B6) erns (B10) ater Table (C2	of two required
Depth (inches): Demarks: Dindicators of hydrology Vetland Hydrology Trimary Indicators (mi Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1)	Indicators: nimum of one i) (A2)		☐ W ☐ Ad ☐ Ti ☐ H	Vater-Staine quatic Faur rue Aquatic lydrogen Sc	na (B13) c Plants (E ulfide Odo	B14) or (C1)		Seconda Surf Drai Dry Cray	ary Indicat face Soil C inage Patti Season W rfish Burro	ors (minimum racks (B6) erns (B10) fater Table (C2 ws (C8)	of two required
Pepth (inches): Depth (inches): Demarks: Demarks: Dem	Indicators: nimum of one i) (A2)		W Ad Tr	Vater-Staine quatic Faur rue Aquatio lydrogen Su Oxidized Rhi	na (B13) c Plants (E ulfide Odo izosphere:	B14) or (C1) s on Living I	Roots (C3)	Seconda Surf Dra Dry Cray	ary Indicat face Soil C inage Patti Season W rfish Burro uration Vis	ors (minimum racks (B6) erns (B10) ater Table (C2 ws (C8) ible on Aerial I	of two required
Depth (inches): Demarks: Dindicators of hydrology: Wetland Hydrology: Wetland Hydrology	Indicators: nimum of one i) (A2)		W Ad Ti H*	Vater-Staine quatic Faur rue Aquatic lydrogen Su oxidized Rhi resence of	na (B13) c Plants (E ulfide Odo izosphere Reduced	B14) or (C1) s on Living I Iron (C4)	, ,	Seconda Surf Drai Dry Cray Satt Sturf	ary Indicat face Soil C inage Pattr Season W rfish Burro uration Vis inted or Str	ors (minimum racks (B6) erns (B10) later Table (C2 lws (C8) ible on Aerial I essed Plants (of two required
Depth (inches): Demarks: Dindicators of hydrology Detained Hydro	Indicators: nimum of one i) (A2) : (B2) (B4)		W A6 T1 H1 O Pr R6	Vater-Staine quatic Faur rue Aquatic lydrogen Su exidized Rhi resence of lecent Iron	na (B13) c Plants (E ulfide Odd izosphere: Reduced Reduction	B14) or (C1) s on Living I Iron (C4) n in Tilled S	, ,	Seconda Surf Drai Dry Cray Satu Stur	ary Indicat face Soil C inage Pattr Season W rfish Burro uration Vis nted or Str morphic P	ors (minimum racks (B6) erns (B10) fater Table (C2 ws (C8) ible on Aerial 1 essed Plants (osition (D2)	of two required
Depth (inches): Demarks: Dindicators of hydrology Metland Hydrology	Indicators: nimum of one i) (A2) s (B2)	is required; c	W A(Vater-Staine quatic Faur rue Aquatic lydrogen Su oxidized Rhi resence of lecent Iron 'hin Muck S	na (B13) c Plants (B ulfide Odc izosphere: Reduced Reduction surface (C	B14) or (C1) s on Living l Iron (C4) n in Tilled So 7)	, ,	Seconda Surf Drai Dry Cray Satu Stur	ary Indicat face Soil C inage Pattr Season W rfish Burro uration Vis inted or Str	ors (minimum racks (B6) erns (B10) fater Table (C2 ws (C8) ible on Aerial 1 essed Plants (osition (D2)	of two required
Depth (inches): Demarks: Dindicators of hydrology Vetland Hydrology Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible	Indicators: nimum of one i) (A2) (B2) (B4) on Aerial Imag	is required; c	W A(Vater-Staine quatic Faur rue Aquatic lydrogen Su exidized Rhi resence of lecent Iron	na (B13) c Plants (B ulfide Odc izosphere: Reduced Reduction surface (C	B14) or (C1) s on Living l Iron (C4) n in Tilled So 7)	, ,	Seconda Surf Drai Dry Cray Satu Stur	ary Indicat face Soil C inage Pattr Season W rfish Burro uration Vis nted or Str morphic P	ors (minimum racks (B6) erns (B10) fater Table (C2 ws (C8) ible on Aerial 1 essed Plants (osition (D2)	of two required
Depth (inches): Demarks: Dindicators of hydrology Metland Hydrology	Indicators: nimum of one i) (A2) (B2) (B4) on Aerial Imag	is required; c	W A(Vater-Staine quatic Faur rue Aquatic lydrogen Su oxidized Rhi resence of lecent Iron 'hin Muck S	na (B13) c Plants (B ulfide Odd izosphere: Reduced Reduction iurface (C ell Data (l	B14) or (C1) s on Living I Iron (C4) n in Tilled Si 7)	, ,	Seconda Surf Drai Dry Cray Satu Stur	ary Indicat face Soil C inage Pattr Season W rfish Burro uration Vis nted or Str morphic P	ors (minimum racks (B6) erns (B10) fater Table (C2 ws (C8) ible on Aerial 1 essed Plants (osition (D2)	of two required
Depth (inches): Remarks: Di indicators of hydrology Vetland Hydrology Trimary Indicators (mi Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible Sparsely Vegetate	Indicators: nimum of one i) (A2) (B2) (B4) on Aerial Imag	is required; c	W A(Vater-Staine quatic Faur frue Aquatic lydrogen Su exidized Rhi resence of lecent Iron thin Muck S Gauge or Wi	na (B13) c Plants (B ulfide Odd izosphere: Reduced Reduction iurface (C ell Data (l	B14) or (C1) s on Living I Iron (C4) n in Tilled Si 7)	, ,	Seconda Surf Drai Dry Cray Satu Stur	ary Indicat face Soil C inage Pattr Season W rfish Burro uration Vis nted or Str morphic P	ors (minimum racks (B6) erns (B10) fater Table (C2 ws (C8) ible on Aerial 1 essed Plants (osition (D2)	of two required
Depth (inches): Remarks: Dindicators of hydrology Vetland Hydrology Trimary Indicators (mi Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible Sparsely Vegetate	Indicators: nimum of one i) (A2) (B2) (B4) on Aerial Imag	is required; co	W Ar Tr O Pr Tr G O	Vater-Staine quatic Faur frue Aquatic lydrogen Su exidized Rhi resence of eccent Iron thin Muck S Gauge or Wo ether (Expla	na (B13) c Plants (I ulfide Odc izosphere: Reduced Reduction ourface (C ell Data (I ain in Rem	B14) or (C1) s on Living I Iron (C4) n in Tilled Si 7)	, ,	Seconda Surf Drai Dry Cray Satu Stur	ary Indicat face Soil C inage Pattr Season W rfish Burro uration Vis nted or Str morphic P	ors (minimum racks (B6) erns (B10) fater Table (C2 ws (C8) ible on Aerial 1 essed Plants (osition (D2)	of two required
Depth (inches): Remarks: Dindicators of hydrology Vetland Hydrology Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible Sparsely Vegetate Vegetate Vetland Hydrology Vetla	(ndicators: nimum of one i) (A2) (B2) (B4) on Aerial Imag	is required; considering the service of the service	W	Vater-Staine quatic Faur frue Aquatic lydrogen Su exidized Rhi resence of lecent Iron thin Muck S Gauge or Wo exident (Explained)	na (B13) c Plants (I ulfide Odc izosphere: Reduced Reduction Gurface (C ell Data (I ain in Rem	B14) or (C1) s on Living I Iron (C4) n in Tilled So 7) D9) narks)	oils (C6)	Seconda Surf Drai Dry Cray Satu Stur	ary Indicat face Soil C inage Pattr Season W rfish Burro uration Vis nted or Str morphic P	ors (minimum racks (B6) erns (B10) fater Table (C2 ws (C8) ible on Aerial 1 essed Plants (osition (D2)	of two required
Depth (inches): Remarks: Dindicators of hydrology Vetland Hydrology Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible Sparsely Vegetate Vetland Visible Sparsely Vegetate Vetland Visible Vetland Vetland Visible Vetland Vetland Vetland Vetland Vetland Vetland V	Indicators: nimum of one i) (A2) (B2) (B4) on Aerial Imag d Concave Surf	ery (B7) face (B8) No No	W	Vater-Staine quatic Faur frue Aquatic lydrogen Su exidized Rhi resence of lecent Iron thin Muck S Gauge or Wo exident (Explained)	na (B13) c Plants (I ulfide Odc izosphere: Reduced Reduction Gurface (C ell Data (I ain in Rem	B14) or (C1) s on Living I Iron (C4) n in Tilled Si 7)	oils (C6)	Seconda Surf Drai Dry Cray Satu Stur	ary Indicat face Soil C inage Patti Season W yfish Burro uration Vis nted or Str morphic P -Neutral T	ors (minimum racks (B6) erns (B10) fater Table (C2 ws (C8) ible on Aerial 1 essed Plants (osition (D2)	of two required
Depth (inches): Remarks: Dindicators of hydrology Vetland Hydrology Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible Sparsely Vegetate Vegetate Vetland Hydrology Vetla	(Indicators: nimum of one i) (A2) (B2) (B4) on Aerial Imag d Concave Surf	ery (B7) face (B8) No No	W	Vater-Staine quatic Faur frue Aquatic lydrogen Su exidized Rhi resence of lecent Iron thin Muck S Gauge or Wo exident (Explained)	na (B13) c Plants (Eulfide Odc izosphere: Reduced Reduction Gurface (C ell Data (I nin in Rem hes):	B14) or (C1) s on Living I Iron (C4) n in Tilled S 7) D9) narks)	oils (C6)	Seconda Surf Drai Dry Cray Satu Stur	ary Indicat face Soil C inage Patti Season W yfish Burro uration Vis nted or Str morphic P -Neutral T	ors (minimum racks (B6) erns (B10) fater Table (C2 ws (C8) fible on Aerial 1 ressed Plants (osition (D2) est (D5)	of two required (C9) (C9) (D1)
Depth (inches): Demarks: Dindicators of hydrology Detland Hydrology Detland Hydrology Detland Hydrology Definition (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible Sparsely Vegetate Definition (A3) Water Marks (B1) Definition (B3) Algal Mat or Crust Definition (B5) Inundation (B5) Inundation (B5) Inundation (B5) Inundation (B5) Algal (B6) Sparsely Vegetate Definition (B6) Definition (B7) Definition (B	Indicators: nimum of one i) (A2) (B2) (B4) on Aerial Imag d Concave Surfa	is required; containing the service (B7) face (B8) No No No No No No No No	W Ad Ti	Vater-Staine quatic Faur irue Aquatic lydrogen Su exidized Rhi resence of lecent Iron chin Muck S dauge or We exit (Explain Depth (inc	na (B13) c Plants (Eulfide Odc izosphere: Reduced Reduction curface (C ell Data (I ain in Rem thes): thes):	B14) or (C1) s on Living I Iron (C4) n in Tilled S 7) D9) narks)	oils (C6)	Seconda Surf Drai Dry Cray Satu Stur Geo FAC	ary Indicat face Soil C inage Patti Season W yfish Burro uration Vis nted or Str morphic P -Neutral T	ors (minimum racks (B6) erns (B10) fater Table (C2 ws (C8) fible on Aerial 1 ressed Plants (osition (D2) est (D5)	of two required (c) (magery (C9) D1)
Depth (inches): Demarks: Dema	Indicators: nimum of one i) (A2) (B2) (B4) on Aerial Imag d Concave Surfa	is required; containing the service (B7) face (B8) No No No No No No No No	W Ad Ti	Vater-Staine quatic Faur irue Aquatic lydrogen Su exidized Rhi resence of lecent Iron chin Muck S dauge or We exit (Explain Depth (inc	na (B13) c Plants (Eulfide Odc izosphere: Reduced Reduction curface (C ell Data (I ain in Rem thes): thes):	B14) or (C1) s on Living I Iron (C4) n in Tilled S 7) D9) narks)	oils (C6)	Seconda Surf Drai Dry Cray Satu Stur Geo FAC	ary Indicat face Soil C inage Patti Season W yfish Burro uration Vis nted or Str morphic P -Neutral T	ors (minimum racks (B6) erns (B10) fater Table (C2 ws (C8) fible on Aerial 1 ressed Plants (osition (D2) est (D5)	of two required (c) (magery (C9) D1)

Project/Site: 64 Acres, Blue Lake Camp	ground, Smith Township	City	/County:	Whitley Cou	nty Sampling Date: 11-Nov-14
Applicant/Owner: _All American RV Resc	orts I, LLC.			State:	Sampling Point: 5
Investigator(s): Jacob Bannister and M	olly Baughman	Se	ection, Towr	ship, Range:	: S 10 T 32N R 10E
Landform (hillslope, terrace, etc.): Lowl				Local relief (d	concave, convex, none): concave
Slope: 0.0% 0.0 • Lat.:			Long.:		Datum:
			LOIIG		
Soil Map Unit Name: <u>Martisco muck</u>		Voc. () No O	(75	NWI classification: PFO1C
Are climatic/hydrologic conditions on the				•	xplain in Remarks.)
Are Vegetation , Soil .	, or Hydrology s	ignificantly dist	urbed?	Are "No	ormal Circumstances" present? Yes No
Are Vegetation, Soil	, or Hydrology 🔲 r	naturally problem	matic?	(If nee	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - A	Attach site map show	wing samp	ling poin	t locatio	ons, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes No				
Hydric Soil Present?	Yes ● No ○			Sampled A	
Wetland Hydrology Present?	Yes No		withi	n a Wetland	d? Yes ● No ○
, 5,	103 0 110 0				
Remarks:					
VEGETATION - Use scie	entific names of plar	nts.	Dominant		
/al		Absolute	Species? Rel.Strat.		Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% Cover	Cover	Status	Number of Dominant Species
•			✓ 62.5% ✓ 37.5%	FACW	That are OBL, FACW, or FAC: 4 (A)
2. Populus deltoides			0.0%	FAC	Total Number of Dominant
3			0.0%		Species Across All Strata:5(B)
5.		0 [0.0%		Percent of dominant Species
			= Total Cove	er	That Are OBL, FACW, or FAC: 80.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15	5 ft.)				Prevalence Index worksheet:
1 0		20	✓ 57.1%	FACW	Total % Cover of: Multiply by:
2. Rosa multiflora		10	28.6%	FACU	OBL species 0 x 1 = 0
3. Rubus occidentalis			14.3%	UPL	FACW species <u>135</u> x 2 = <u>270</u>
4		_ 0 [0.0%		FAC species <u>15</u> x 3 = <u>45</u>
5			0.0%		FACU species <u>15</u> x 4 = <u>60</u>
<u>Herb Stratum</u> (Plot size: 5 ft.)	35	= Total Cove	er	UPL species 5 x 5 =25
1. Phalaris arundinacea		90	94.7%	FACW	Column Totals: <u>170</u> (A) <u>400</u> (B)
2. Rosa multiflora		5	5.3%	FACU	Prevalence Index = B/A = 2.353
3		_ 0_ [0.0%		Hydrophytic Vegetation Indicators:
4		_ 0_ [0.0%		1 - Rapid Test for Hydrophytic Vegetation
			0.0%		2 - Dominance Test is > 50%
6					✓ 3 - Prevalence Index is ≤3.0 ¹
7 8.		- <u>0</u> [0.0%		4 - Morphological Adaptations ¹ (Provide supporting
9.		0 [data in Remarks or on a separate sheet)
10.		0 [0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
			= Total Cove		$\frac{1}{2}$ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratu (Plot size:)			-1	be present, unless disturbed or problematic.
1		_ 0_ [0.0%		Hadarah da
2		0	0.0%		Hydrophytic Vegetation
		:	= Total Cove	er	Present? Yes No
					1
Remarks: (Include photo numbers	s here or on a separate s	heet.)			

Profile Description: (D	Matrix	ne uepui n					c abscilec e			
DepthColor	(moist)	%	Color (moist)	dox Featu _%	Type 1	Loc ²	Te	xture		Remarks
0-4 10YR	3/3	100					Sandy Cla			
4-10 10YR	5/1	80	7.5YR 4/4	20	С	М	Silty Clay	-	contains m	arl
Tuno: C. Consentration	D-Donlotion	DM-Dadua	ad Matrix CS Cover	end or Cont	end Cand Cr	nina	21 continu	DI — Dovo Linir	M_Moteix	
Type: C=Concentration, Hydric Soil Indicators		, RM=Reduct	ed Matrix, CS=Cover	ed or Coal	eu Sanu Gr	dilis.		PL=Pore Linir	lematic Hydri	c Soils ³ :
Histosol (A1)			Sandy Gleyed	Matrix (S	4)				-	c sons .
Histic Epipedon (A2)			Sandy Redox	(S5)				st Prairie Red	. ,	
Black Histic (A3)			Stripped Matr	ix (S6)				k Surface (S7)		
Hydrogen Sulfide (A	•		Loamy Mucky	Mineral (F	=1)			n Manganese I		
Stratified Layers (A5)		Loamy Gleyed	-	-		Ver	y Shallow Darl	Surface (TF12)
2 cm Muck (A10)			✓ Depleted Mati		•		Oth	er (Explain in	Remarks)	
Depleted Below Darl	Surface (A1	1)	Redox Dark S)					
Thick Dark Surface (A12)		Depleted Dark	`	,		3 India	ators of budge	phytic vegetation	un and
Sandy Muck Mineral	(S1)		Redox Depres		. ,		We	etland hydrolo	gy must be pre	sent,
5 cm Mucky Peat or	Peat (S3)						ι	ınless disturbe	d or problemat	c.
Restrictive Layer (if ol Type: Depth (inches): Remarks:							Hydric S	ioil Present?	Yes •	No O
Type:							Hydric S	oil Present?	Yes •	No O
Type:							Hydric S	Soil Present?	Yes •	No O
Type: Depth (inches): Remarks: IYDROLOGY Wetland Hydrology In		required of	hock all that apply)							
Type: Depth (inches): Remarks: IYDROLOGY Wetland Hydrology In Primary Indicators (minimary Indicators		s required; c		and Lawren	(80)			econdary India	cators (minimur	No O
Type: Depth (inches): Remarks: IYDROLOGY Wetland Hydrology In Primary Indicators (mining Surface Water (A1)	num of one is	s required; d	Water-Stain		(B9)			econdary Indio	cators (minimur Cracks (B6)	
Type:	num of one is	s required; c	Water-Stain Aquatic Fau	ına (B13)	. ,			econdary Indio Surface Soil Drainage Pa	cators (minimur Cracks (B6) atterns (B10)	n of two required
Type:	num of one is	s required; c	Water-Stain Aquatic Fau True Aquati	ina (B13) ic Plants (E	314)			econdary Indio Surface Soil Drainage Pa	cators (minimur Cracks (B6) atterns (B10) Water Table (C	n of two required
Type:	num of one is	s required; c	Water-Stain Aquatic Fau True Aquati Hydrogen S	ina (B13) ic Plants (E Sulfide Odo	314) r (C1)	Poots (C3)		econdary Indio Surface Soil Drainage Pa Dry Season Crayfish Bu	cators (minimur Cracks (B6) atterns (B10) Water Table (Crrows (C8)	n of two required
Type:	num of one is	s required; d	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh	ina (B13) ic Plants (E iulfide Odo nizospheres	314) r (C1) s on Living I	Roots (C3)		econdary India Surface Soil Drainage Pa Dry Season Crayfish Bu Saturation V	cators (minimur Cracks (B6) atterns (B10) Water Table (C rrows (C8) /isible on Aerial	n of two required (2) Imagery (C9)
Type:	num of one is 2) 32)	s required; d	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of	ina (B13) ic Plants (E julfide Odo nizospheres Reduced	314) r (C1) s on Living I Iron (C4)			econdary India Surface Soil Drainage Pa Dry Season Crayfish Bu Saturation V	cators (minimur Cracks (B6) atterns (B10) Water Table (C rrows (C8) /isible on Aerial Stressed Plants	n of two required (2) Imagery (C9)
Type:	num of one is 2) 32)	s required; d	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron	ina (B13) ic Plants (E iulfide Odo nizospheres Reduced Reduction	B14) or (C1) or on Living I Iron (C4) or in Tilled Se			econdary India Surface Soil Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or S	cators (minimur Cracks (B6) atterns (B10) Water Table (C rrows (C8) /isible on Aerial Stressed Plants : Position (D2)	n of two required (2) Imagery (C9)
Type:	num of one is 2) 32)		Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S	ina (B13) ic Plants (E iulfide Odo iizospheres Reduced i Reduction Gurface (C	314) r (C1) s on Living I Iron (C4) n in Tilled So 7)			econdary India Surface Soil Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or S	cators (minimur Cracks (B6) atterns (B10) Water Table (C rrows (C8) /isible on Aerial Stressed Plants : Position (D2)	n of two required (2) Imagery (C9)
Type:	num of one is 2) 32) 44) Aerial Imag	ery (B7)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron	ina (B13) ic Plants (E culfide Odo nizospheres Reduced Reduction Gurface (C) /ell Data (E	314) r (C1) s on Living I Iron (C4) n in Tilled So 7)			econdary India Surface Soil Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or S	cators (minimur Cracks (B6) atterns (B10) Water Table (C rrows (C8) /isible on Aerial Stressed Plants : Position (D2)	n of two required (2) Imagery (C9)
Type:	num of one is 2) 32) 44) Aerial Imag	ery (B7) ace (B8)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	ina (B13) ic Plants (E culfide Odo nizospheres Reduced Reduction Gurface (C) /ell Data (E	314) r (C1) s on Living I Iron (C4) n in Tilled So 7)			econdary India Surface Soil Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or S	cators (minimur Cracks (B6) atterns (B10) Water Table (C rrows (C8) /isible on Aerial Stressed Plants : Position (D2)	n of two required (2) Imagery (C9)
Type:	num of one is 2) 32) 44) Aerial Imag	ery (B7) ace (B8)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	ina (B13) ic Plants (E iulfide Odo nizospheres Reduced Reductior Surface (C: /ell Data (I ain in Rem	314) r (C1) s on Living I Iron (C4) n in Tilled So 7)			econdary India Surface Soil Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or S	cators (minimur Cracks (B6) atterns (B10) Water Table (C rrows (C8) /isible on Aerial Stressed Plants : Position (D2)	n of two required (22) Imagery (C9)
Type:	num of one is 2) 32) 4) Aerial Imago	ery (B7) ace (B8)	Water-Stain Aquatic Fau Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	ina (B13) ic Plants (E iulfide Odo izospheres Reduced Reductior Surface (C) Jell Data (I ain in Rem	B14) or (C1) s on Living I Iron (C4) on in Tilled So (7) (29) Harks)			econdary India Surface Soil Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or S	cators (minimur Cracks (B6) atterns (B10) Water Table (C rrows (C8) /isible on Aerial Stressed Plants : Position (D2) I Test (D5)	n of two required (22) Imagery (C9) (D1)
Type:	num of one is 2) 32) 44) Aerial Imag Concave Surfa Yes Yes	ery (B7) ace (B8) No •	Water-Stain Aquatic Fau Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain) Depth (inc	ina (B13) ic Plants (E iulfide Odo izospheres Reduced Reductior Surface (C /ell Data (I ain in Rem ches):	B14) or (C1) s on Living I Iron (C4) on in Tilled So (7) (29) Harks)	bils (C6)		econdary India Surface Soil Drainage Pa Dry Season Crayfish Bu Saturation V Stunted or S	cators (minimur Cracks (B6) atterns (B10) Water Table (C rrows (C8) /isible on Aerial Stressed Plants : Position (D2) I Test (D5)	n of two required (22) Imagery (C9)
Type:	num of one is 2) 32) 44) Aerial Imag Concave Surfa Yes Yes Yes	ery (B7) ace (B8) No No No No No No No No	Water-Stain Aquatic Fau Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	ina (B13) ic Plants (E iulfide Odo izospheres Reduced Reductior Surface (C ivell Data (I aain in Rem iches): Liches): Liches): Liches): Liches (C Ivell Data (I Ivell Data	B14) or (C1) s on Living I Iron (C4) on in Tilled So (7) (29) or in Tilled So (7) (29) or in Tilled So (7) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	bils (C6)	s S	econdary India Surface Soil Drainage Pa Dry Season Crayfish Bu Saturation \ Stunted or : Geomorphic FAC-Neutra	cators (minimur Cracks (B6) atterns (B10) Water Table (C rrows (C8) /isible on Aerial Stressed Plants : Position (D2) I Test (D5)	n of two required (22) Imagery (C9) (D1)
Type:	num of one is 2) 32) 44) Aerial Imag Concave Surfa Yes Yes Yes	ery (B7) ace (B8) No No No No No No No No	Water-Stain Aquatic Fau Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Thin Muck S Gauge or W Other (Explain	ina (B13) ic Plants (E iulfide Odo izospheres Reduced Reductior Surface (C ivell Data (I aain in Rem iches): Liches): Liches): Liches): Liches (C Ivell Data (I Ivell Data	B14) or (C1) s on Living I Iron (C4) on in Tilled So (7) (29) or in Tilled So (7) (29) or in Tilled So (7) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	bils (C6)	s S	econdary India Surface Soil Drainage Pa Dry Season Crayfish Bu Saturation \ Stunted or : Geomorphic FAC-Neutra	cators (minimur Cracks (B6) atterns (B10) Water Table (C rrows (C8) /isible on Aerial Stressed Plants : Position (D2) I Test (D5)	n of two required (22) Imagery (C9) (D1)

Project/Site: 64 Acres, Blue Lake Camp	ground, Smith Township	City/	County: W	hitley Cour	nty		Sampling Date:	11-Nov-14
Applicant/Owner: All American RV Reso	orts I, LLC.			State:	IN	Sampling	Point:	6
Investigator(s): Jacob Bannister and Mc	olly Baughman	Sec	ction, Townsh		s 10		-	
Landform (hillslope, terrace, etc.): Hillsio	ide		Lo	cal relief (c	concave, convex	x, none): cor	ıvex	-
			Long.:				Datum:	
						/I classification		
Soil Map Unit Name: Martisco muck,		Yes •	No ()	/If no ex	NW plain in Remarl		I: PFOIC	
Are climatic/hydrologic conditions on the		significantly distu		•	•	,	Yes •	No O
	, , , , , , , , , , , , , , , , , , , ,				ormal Circumsta	•		/ NO C
Are Vegetation, Soil SUMMARY OF FINDINGS - A		naturally problem owing sampli		•	ded, explain an ns, transec	•	,	. etc.
								,
Hydrophytic Vegetation Present?	Yes ● No ○ Yes ○ No ●		Is the S	Sampled A	\rea			
Hydric Soil Present?	Yes O No O			a Wetland		No 💿		
Wetland Hydrology Present?	Yes UNO S							
Remarks:								
VEGETATION - Use scie	entific names of pla		Dominant					
			Species? — Rel.Strat. I	indicator	Dominance	Test worksh	neet:	
Tree Stratum (Plot size:)	% Cover	Cover	Status		Dominant Spec		
1			0.0%			L, FACW, or FA		3 (A)
2			0.0%		Total Numbe	er of Dominant	t .	
3					Species Acros			<u>5</u> (B)
4			0.0%		Dercent of	dominant Sp	naciae	
5		0 _	0.0%	—— I		BL, FACW, o		0.0% (A/B)
_Sapling/Shrub Stratum (Plot size: 15	5.ft.)	=	Total Cover	ļ				
1. Cornus alba	,	5	50.0%	FACW		Index works % Cover of:		• ••
Corrius aiba Acer saccharinum		_ <u> </u>		FACW	OBL specie		x 1 =	<u>y:</u> 0
3.		$ \frac{3}{0}$	0.0%	TACI	FACW spe		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
1			0.0%		FAC specie			<u> </u>
5.		0	0.0%		FACU spec		0 x 4 =	280
Herb Stratum (Plot size: 5 ft.)	10 =	Total Cover		UPL specie	-		0
1 Trifolium hybridum		40	42.1%	FACU	Column To	otals: 10	 ₁₅ (A)	375 (B)
2 - "		20		FACU				
3. Poa pratensis				FAC		ence Index =		571_
4 T				FACU	l <i>_i · '</i>	c Vegetation		
F				FAC	_	-	drophytic Veget	ation
6.		0	0.0%			inance Test i		
7		0	0.0%			alence Index		
8			0.0%		☐ 4 - Morp data in F	ihologicai Ad Remarks or c	laptations 1 (Pro on a separate she	vide supporting eet)
9			0.0%				hytic Vegetation	=
10		0 _	0.0%		¹ Indicator	s of hydric s	oil and wetland h	avdrology must
Woody Vine Stratu (Plot size:)	95 =	Total Cover	ļ			irbed or problem	
1			0.0%					
2.		0 [0.0%		Hydrophyti Vegetation			
		0 =	Total Cover		Present?	Yes 💿	No 🔾	
Remarks: (Include photo numbers	s here or on a separate	sheet.)						

Profile Descr	iption: (De	scribe to	the depth r	needed to docun	nent the ind	licator or c	onfirm th	e absence of indicators.)	
Depth		Matrix			Redox Feat			_	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u> </u>	Type 1	Loc ²	Texture	Remarks
0-8	10YR	5/4	100					Clay Loam	
8-14	10YR	5/4	90	7.5YR 4/4	4 10	C	M	Clay Loam	
14-20	10YR	3/3	95	7.5YR 4/4	4 5	С	М	Silty Clay Loam	
¹ Type: C=Con	centration, D	=Depletion	n, RM=Reduc	ced Matrix, CS=Co	vered or Coa	ated Sand Gr	ains.	² Location: PL=Pore Lining. N	1=Matrix.
Hydric Soil 1	indicators:							Indicators for Problem	atic Hydric Soils ³ :
Histosol (,			Sandy Gle	yed Matrix (S	54)		Coast Prairie Redox (A	N16)
	pedon (A2)			Sandy Red	dox (S5)			Dark Surface (S7)	
Black Hist	ic (A3) Sulfide (A4)				4atrix (S6)			☐ Iron Manganese Mass	es (F12)
	Layers (A5)			_ `	icky Mineral (` '		☐ Very Shallow Dark Su	,
2 cm Muc					eyed Matrix (I	F2)		Other (Explain in Rem	, ,
	Below Dark S	Surface (A	11)		Matrix (F3)			carer (Explain in real	
	k Surface (A	•	,	_	rk Surface (Fo Dark Surface	•		2	
☐ Sandy Mu	ck Mineral (9	31)		= .		` '		³ Indicators of hydrophyt wetland hydrology n	ic vegetation and
5 cm Muc	ky Peat or Pe	eat (S3)		☐ Redox Dep	pressions (F8	·)		unless disturbed or	
Restrictive L	ayer (if obs	erved):							
Туре:									
Depth (inc	hes):							Hydric Soil Present?	Yes ○ No •
Remarks:								I	
No indicators	of hydric se	nils were	observed.						
	o, :	J	0000						
HYDROLO	GY								
Wetland Hyd	rology Indi	icators:							
-			is required;	check all that appl	v)			Secondary Indicator	rs (minimum of two required
Surface W					tained Leave			Surface Soil Cra	
	er Table (A2)	J		=	Fauna (B13)	` '		☐ Drainage Patter	` '
Saturation	, ,				uatic Plants (☐ Dry Season Wat	• •
Water Ma					en Sulfide Od			Crayfish Burrow	
	Deposits (B2	2)			l Rhizosphere		Roots (C3)		le on Aerial Imagery (C9)
☐ Drift Depo	osits (B3)			Presence	e of Reduced	Iron (C4)		Stunted or Stre	ssed Plants (D1)
Algal Mat	or Crust (B4)		Recent I	Iron Reductio	on in Tilled S	oils (C6)	Geomorphic Pos	sition (D2)
☐ Iron Depo	osits (B5)			☐ Thin Mu	ck Surface (C	27)		FAC-Neutral Tes	st (D5)
Inundatio	n Visible on A	Aerial Imaç	gery (B7)	☐ Gauge c	or Well Data ((D9)			
Sparsely \	egetated Co	ncave Sur	face (B8)	Other (E	Explain in Rer	marks)			
Field Observ	ations:		0 0						
Surface Water	Present?	Yes	O No @	<i>Depth</i>	(inches):		_		
Water Table P	resent?	Yes	O No @	Depth	(inches):				
Saturation Pre		Yes ⁽	O No •) Denth	(inches):		Wet	land Hydrology Present?	Yes O No 🖲
(includes capil								a) if available.	
Describe Rec	orded Data	(stream	gauge, mor	nitoring well, ae	riai pnotos,	previous ir	nspection	is), if available:	
-									
Remarks:									
No indicators	of wetland	I hydrolog	gy were obs	served.					

Investigator(s): Jacob Bannister and Molly Baughman Section, Township, R Landform (hillslope, terrace, etc.): Lowland Local re	State: IN Sampling Point: 7 Range: S 10 T 32N R 10E
Investigator(s): Jacob Bannister and Molly Baughman Section, Township, R Landform (hillslope, terrace, etc.): Lowland Local re	
·	elief (concave, convex, none): concave
Slope: <u>0.0%</u> <u>0.0</u> • Lat.:Long.:	Datum:
Soil Map Unit Name: Coesse silty clay loam	ADAIT ALL ARTHUR DECAR
	no, explain in Remarks.)
	Are "Normal Circumstances" present? Yes No No
	are normal direamstances present.
Are Vegetation, Soil, or Hydrology naturally problematic? (1 SUMMARY OF FINDINGS - Attach site map showing sampling point locations.)	If needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes No O	· · · · · · · · · · · · · · · · · · ·
Is the Samp	pled Area
Wetland Hydrology Present? Yes No	etland? Yes No
Remarks:	
Relidiks.	
VEGETATION - Use scientific names of plants. Dominant Species?	
Absolute Rel.Strat. Indic	
	Number of Dominant Species
1. Ulmus americana 30 ✓ 60.0% FACU 2. Juglans nigra 20 ✓ 40.0% FACU	
3. 0 0.0%	Total Number of Dominant
4. 0 0 0.0%	Species Across All Strata: 4 (B)
5. 0 0.0%	Percent of dominant Species That Are OBL_FACW_or_FAC: 75.0% (A/B)
50 = Total Cover	That Are OBL, FACW, or FAC: 75.0% (A/B)
_ <u>Sapling/Shrub Stratum (</u> Plot size:)	Prevalence Index worksheet:
1. 0 0.0%	Total % Cover of: Multiply by:
$\begin{bmatrix} 2. & & & & & & & & & & & \\ 3. & & & & & & & & & & \end{bmatrix}$	OBL species $0 \times 1 = 0$
0 0006	FACW species 115 $\times 2 = 230$ FAC species 0 $\times 3 = 0$
5. 0 0.0%	FACU species 0 x 3 = 0 FACU species 20 x 4 = 80
0 - Total Cover	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Herb Stratum (Plot size: 5 ft.)	
25 14 20 510	
2. Solidago gigantea 35 ♥ 41.2% FACV 3. Urtica dioica 10 11.8% FACV	W Prevalence Index = D/A = 2.290
4. 0 0.0%	Hydrophytic Vegetation Indicators:
5. 0 0.0%	1 - Rapid Test for Hydrophytic Vegetation
6. 0 0 0.0%	✓ 2 - Dominance Test is > 50%
7	✓ 3 - Prevalence Index is ≤3.0 ¹
8. 0 0.0%	4 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Problematic Hydrophytic Vegetation ¹ (Explain)
10	
Woody Vine Stratu (Plot size:)	be present, unless disturbed or problematic.
1	
	Hydrophytic Vegetation Present? Yes No
2	Present? Yes • No ·
2	Present?
	Present 199 - 199
	Present? 135 3 116 2
	Present? 135 3 116 2

Remarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicator Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Crace High Water Table (A2) Aquatic Fauna (B13) Drainage Pattern Saturation (A3) True Aquatic Plants (B14) Dry Season Water Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows	Remarks
Gest	
Hydric Soil Indicators: Histos (A1)	1—Matrix
Histosol (A1) Sandy Gleyed Matrix (S4) Coast Prairie Redox (A1) Histos Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) Dark Surface (S7) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Sur 2 cm Muck (A10) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Thick Dark Surface (A12) Depleted Dark Surface (F7) Indicators of hydrophyti wetland hydrology mulless disturbed or Restrictive Layer (if observed): Type:	
Histic Epipedon (A2) Black Histic (A3) Black Histic (A3) Black Histic (A3) Stripped Matrix (S6) Iron Manganese Masse Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sondy Muck Mineral (S1) Wetand Hydrology Indicators (Propertion Muck Mineral (S1) Wetand Hydrology Indicators (Minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Water Marks (B1) Water Marks (B2) Sodiment Deposits (B2) Solution (A3) True Aquatic Plants (B14) Water Marks (B1) Drift Deposits (B2) Solution (A3) The Aquatic Plants (B14) Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Wetland Hydrology Present? Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Present?	atic Hydric Soils 3:
Black Histic (A3) Hydrogen Sulfide (A4) Hydrogen Sulfide (A4) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Depleted Below Dark Surface (A12) Thick Dark Surface (A12) Depleted Dark Surface (F6) Thick Dark Surface (A12) Thick Dark Surface (A12) Depleted Dark Surface (F7) Thick Dark Surface (A13) To sm Mucky Peat or Peat (S3) Restrictive Layer (If observed): Type: Depth (inches): Type: Depth (inches): Remarks: Water-Stained Leaves (B9) Hydric Soil Present? Hydric Soil Present? Hydric Soil Crait Caption of the Caption of the Caption of the Caption of the Caption of Steric Caption of Staturation (A3) True Aquatic Plants (B14) Dry Season Water Marks (B1) Drift Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Deposits (B3) Drift Deposits (B3	\ 16)
Hydrogen Sulfide (A4) Stratified Layers (A5) □ Loamy Mucky Mineral (F1) □ Loamy Gleyed Matrix (F2) □ Carm Muck (A10) □ Depleted Below Dark Surface (A11) □ Depleted Below Dark Surface (A12) □ Depleted Below Dark Surface (A12) □ Depleted Dark Surface (F6) □ Thick Dark Surface (A12) □ Depleted Dark Surface (F7) □ Sandy Muck Mineral (S1) □ S cm Mucky Peat or Peat (S3) □ Depth (inches): □ Type: □ Depth (inches): □ Redox Depressions (F8) □ Indicators of hydrophyti wetland hydrology munless disturbed or unless disturbed or u	
Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sondy Muck Mineral (S1) Sondy Muck Mineral (S1) Redox Depressions (F8) Redox Depressions (F	es (F12)
Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Depleted Dark Surface (A12) Depleted Dark Surface (A12) Depleted Dark Surface (A12) Depleted Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Muck Mineral (S1) Redox Depressions (F8) Setrictive Layer (if observed): Type: Depth (inches): Depth (inches): Remarks: Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Drainage Patter Sutration (A3) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Dirift Deposits (B3) Dirift Deposits (B3) Presence of Reduced Iron (C4) Dirift Deposits (B3) Presence of Reduced Iron (C4) Dirift Deposits (B3) Dirift Deposits (B4) Dirift Day Deposits (B4) Dirift Day Deposits (B4) Dirift Day Deposits (B5) Dirift Day Deposits (B7) Dirift Day Deposits (B8) Dirift Day Deposits (B9) Deposits (B9) Dirift Day Deposits (B9) Dirift Day Deposits (B9) Dirift Day Deposits (B9) Dirift Day Deposits (B9) Deposits (B9) Dirift Day Deposits (B9) Deposits (B9) Dirift Day	rface (TF12)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Some Mucky Peat or Peat (S3) Redox Depressions (F8) Redox Dep	iarks)
Sandy Muck Mineral (S1)	
Sort Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Depth (inches): Depth (inches): Remarks: Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	ic vegetation and
Remarks: Hydric Soil Present? Hydric Soi	nust be present,
Type:	problematic.
Per Action (Part	
Image: New Company	· · ·
YDROLOGY	Yes • No O
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicator Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Craven (B13) High Water Table (A2) Aquatic Fauna (B13) Drainage Pattern (B13) Valuation (A3) True Aquatic Plants (B14) Dry Season Water (B14) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrow. Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible. Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Strest. Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Post. Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test. Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Pr	
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Sediment Deposits (B2)	
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Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Gauge or Well Data (D9) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Other (Explain in Remarks) ☐ Depth (inches): ☐ Water Table Present? ☐ Yes ☐ No ☐ Depth (inches): ☐ Depth (inches): ☐ Depth (inches): ☐ Depth (inches): ☐ Other (Explain in Remarks) ☐ Depth (inches): ☐ Depth (inches): ☐ Other (Explain in Remarks) ☐ Other (Explai	ssed Plants (D1)
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Saturation Present? Includes capillary fringe) Yes No Depth (inches): Depth (inches): Depth (inches): Depth (inches): O Wetland Hydrology Present? Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
	Yes No
lemarks:	Yes ● No ○
Remarks:	Yes No
	Yes No
	Yes No

Project/Site: 64 Acres, Blue Lake Campgr	ound, Smith Township	Cit	ty/County:	Whitley Cour	nty	Sampling	Date: 11-Nov-14
Applicant/Owner: All American RV Resort	s I, LLC.			State:	IN		
Investigator(s): Jacob Bannister and Moll			Section, Towr		S 10		DE
Landform (hillslope, terrace, etc.): Footsk				Local relief (c	concave, convex	, none): convex	
Slope: 0.0% 0.0 • Lat.:	'		Long.:				m:
Soil Map Unit Name: Coesse silty clay						I classification: PFO1	
Are climatic/hydrologic conditions on the s		Yes (No ○	/If no. ex	glain in Remark		.C
		significantly dis		• •	ormal Circumsta	,	Yes No
	, , , , , , , , , , , , , , , , , , , ,	-				·	
Are Vegetation, Soil SUMMARY OF FINDINGS - At		naturally proble		•		answers in Remarks.) ts, important fe	,
Hydrophytic Vegetation Present?	Yes No •		<u> </u>		-		
Hydric Soil Present?	Yes O No O			e Sampled A			
Wetland Hydrology Present?	Yes O No O		withi	in a Wetland	i? Yes ○	No 🖲	
, ,	163 🔾 110 🔾						
Remarks:							
VEGETATION - Use scien	tific names of pla	nts.	Dominant				
20.6	-	Absolute	Species?Rel.Strat.	Indicator	Dominance '	Test worksheet:	
<u>Tree Stratum</u> (Plot size: 30 ft)	% Cover	Cover	Status		ominant Species	
-			60.0%	FACU	That are OBL	, FACW, or FAC:	(A)
2. Ulmus americana 3.			40.0%	FACW		r of Dominant	
1			0.0%		Species Acros	ss All Strata:	5(B)
5			0.0%		Percent of d	Iominant Species	
J			= Total Cove			BL, FACW, or FAC:	40.0% (A/B)
_Sapling/Shrub Stratum (Plot size: 15 f	t.)		- 10tal co		Prevalence I	ndex worksheet:	
4		10	✓ 100.0%	FACU			1ultiply by:
2.			0.0%		OBL specie		x 1 = 0
3.		0	0.0%		FACW spec		x 2 = 50
4		0	0.0%		FAC specie	es <u>35</u>	x 3 = 105
5			0.0%		FACU spec	ies <u>40</u>	x 4 = <u>160</u>
Herb Stratum (Plot size: 5 ft.)	10	= Total Cove	er	UPL specie	es <u>40</u>	x 5 = <u>200</u>
1. Rubus occidentalis		40	50.0%	UPL	Column To	tals: <u>140</u> ((A) <u>515</u> (B)
0.411.		20	25.0%	FAC	Prevale	nce Index = B/A =	3.679
3. Geum canadense		15	18.8%	FAC			
4. Urtica dioica		5	6.3%	FACW	1	Vegetation Indicate Test for Hydrophyt	
5			0.0%		l — ·	nance Test is > 50%	_
6			0.0%			llence Index is ≤3.0	
7			0.0%				ns 1 (Provide supporting
8 9.			0.0%		data in R	emarks or on a sepa	arate sheet)
10.			0.0%		Problema	atic Hydrophytic Ve	getation 1 (Explain)
			= Total Cove				vetland hydrology must
<u>Woody Vine Stratu</u> (Plot size:					be present,	unless disturbed or	problematic.
1			0.0%		U. d. onbutic	_	
2			0.0%		Hydrophytic Vegetation		<u>a</u>
		0	= Total Cove	er	Present?	Yes O No	•
Remarks: (Include photo numbers h	nere or on a separate s	sheet.)					

Profile Descr		Matrix			Bod	lox Featu	1200					
Depth (inches)	Color (%	Color (m		<u>%</u>	Type ¹	Loc ²	Textu	ıre	R	Remarks
0-4	10YR	3/2	100						Clay Loam			
4-10	10YR	3/2	99	7.5YR	4/6	1	С	M	Clay Loam			
10-18	10YR	3/2	98	7.5YR	4/6	2		M	Clay Loam			
18-20	10YR	3/2	95	7.5YR	4/6			M	Clay Loam			
10-20	101K			7.51K	-1 /0				Clay Loain			
										_		
¹ Type: C=Con	centration, D	=Depletion	ı, RM=Reduc	ced Matrix, C	S=Covere	ed or Coat	ted Sand Gr	ains.	² Location: PL	.=Pore Lining.	M=Matrix.	
Hydric Soil	Indicators:								Indicator	s for Proble	matic Hydri	c Soils ³ :
Histosol (,					Matrix (S	4)		Coast	Prairie Redox	(A16)	
	pedon (A2)			Sand	dy Redox ((S5)				Surface (S7)	(/10)	
Black Hist	` ,			Stripp	ped Matri	ix (S6)				langanese Ma	ccec (F12)	
	n Sulfide (A4)			Loam	ny Mucky	Mineral (F	- 1)			•	` '	`
	Layers (A5)			Loam	ny Gleyed	Matrix (F	2)			hallow Dark S	•)
2 cm Muc	, ,			Deple	eted Matr	rix (F3)			U Other	(Explain in Re	marks)	
	Below Dark S	•	i1)	Redo	x Dark Sı	urface (F6)					
	rk Surface (A:	,		Deple	eted Dark	Surface ((F7)		³ Indicato	rs of hydroph	ytic vegetatio	n and
	uck Mineral (S	•		Redo	x Depres	sions (F8)			wetla	and hydrology ess disturbed o	must be pres	sent,
	cky Peat or Pe								I	ess distuibed (л ргошешан	С.
	ayer (if obs.	ervea):										
		,										
Туре:	-hoc):								Hydric Soil	Present?	Yes O	No •
			observed.						Hydric Soil	Present?	Yes O	No •
Type: Depth (inc Remarks:			observed.						Hydric Soil	Present?	Yes O	No •
Type: Depth (inc Remarks:	of hydric so		observed.						Hydric Soil	Present?	Yes O	No •
Type: Depth (inc Remarks: No indicators	of hydric so	oils were	observed.						Hydric Soil	Present?	Yes O	No •
Type: Depth (inc Remarks: No indicators HYDROLO	of hydric so DGY drology Indi	oils were		check all that	t apply)							No •
Type:	of hydric so DGY drology Indi	oils were				ed Leaves	(B9)		Seco		ors (minimun	
Type:	OGY drology Indiators (minimum	cators:		Wa			(B9)			ondary Indicat	ors (minimun racks (B6)	
Type:	OGY drology Indiators (minimulators (A1) cer Table (A2)	cators:		☐ Wa ☐ Aqu	ater-Stain uatic Faui					ondary Indicat Surface Soil Ci	ors (minimun racks (B6) erns (B10)	n of two required
Type:	OGY drology Indiators (minimulators (minimulators (A1)) ere Table (A2) n (A3)	cators:		☐ Wa ☐ Aqu ☐ Tru	ater-Staine uatic Faur ue Aquatio	na (B13)	314)		Second 9 1 1 1 1 1 1 1 1 1	ondary Indicat Surface Soil Ci Drainage Patte	ors (minimun racks (B6) erns (B10) later Table (C	n of two required
Type:	OGY drology Indiators (minimulators (minimulators (A1)) ere Table (A2) n (A3)	cators:		☐ Wa ☐ Aqu ☐ Tru ☐ Hyo	ater-Staine uatic Fau ue Aquatio drogen Sc	na (B13) c Plants (E ulfide Odo	314)	Roots (C3)	Secc.	ondary Indicat Surface Soil Cl Drainage Patte Dry Season W Crayfish Burro	ors (minimun racks (B6) erns (B10) fater Table (C ws (C8)	n of two required
Type:	OGY drology Indiators (minimum Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2)	cators:		☐ Wa ☐ Aqu ☐ Tru ☐ Hyc ☐ Oxi	ater-Staine uatic Faul ue Aquatio drogen Su idized Rhi	na (B13) c Plants (E ulfide Odo	314) or (C1) s on Living	Roots (C3)	Second S	ondary Indicat Surface Soil Cl Drainage Patte Dry Season W Crayfish Burro	ors (minimun racks (B6) erns (B10) ater Table (C ws (C8) ible on Aerial	n of two required 2) Imagery (C9)
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Type:	OGY drology Indiators (minimum Vater (A1) arks (B1) t Deposits (B2) osits (B3) or Crust (B4) osits (B5) on Visible on A Vegetated Co	cators: um of one Aerial Imagencave Surf	is required; of gery (B7) face (B8)	Wa Aqu Hyc Oxi Pre Rec Thi Gau	ater-Staind uatic Faul ue Aquatic drogen St idized Rhi esence of cent Iron in Muck S uge or Wi her (Expla	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior Gurface (C) ell Data (I ain in Rem	B14) or (C1) s on Living I Iron (C4) on in Tilled S 7) D9) harks)	bils (C6)		ondary Indicat Surface Soil Ci Drainage Patte Dry Season W Crayfish Burro Saturation Visi Stunted or Str Geomorphic P	ors (minimun racks (B6) erns (B10) fater Table (C wws (C8) ible on Aerial ressed Plants osition (D2)	n of two required 2) Imagery (C9)
Type:	DGY drology Indiators (minimum Water (A1) arrived (A2) arks (B1) at Deposits (B2) cosits (B3) arrived (B4) osits (B5) arrived (B5) arri	cators: um of one 2) Aerial Imagoncave Surf Yes Yes	gery (B7) face (B8) No	Wa Aqu Aqu Tru Hyc Oxi Pre Rec Thi Gau Ott	ater-Staind uatic Faul ue Aquatic drogen St idized Rhi esence of cent Iron in Muck S uge or Wi her (Expla	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior Gurface (C) ell Data (I ain in Rem	B14) or (C1) s on Living Iron (C4) on in Tilled S 7) D9) harks)	poils (C6)		ondary Indicat Surface Soil Ci Drainage Patte Dry Season W Crayfish Burro Saturation Visi Stunted or Str Geomorphic P FAC-Neutral T	ors (minimun racks (B6) erns (B10) later Table (C wws (C8) ible on Aerial ressed Plants osition (D2) est (D5)	n of two required 22) Imagery (C9) (D1)
Type:	OGY drology Indiators (minimum Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) or Crust (B4) osits (B5) on Visible on A Vegetated Co vations: r Present? Present?	cators: um of one Aerial Imagencave Surf	gery (B7) face (B8) No	Wa Aqu Aqu Ayr	ater-Staind uatic Faul ue Aquatic drogen St idized Rhi esence of cent Iron in Muck S uge or Wi her (Expla	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior Gurface (C) ell Data (I pain in Rem hes):	B14) or (C1) s on Living I Iron (C4) on in Tilled S 7) D9) harks)	poils (C6)		ondary Indicat Surface Soil Ci Drainage Patte Dry Season W Crayfish Burro Saturation Visi Stunted or Str Geomorphic P FAC-Neutral T	ors (minimun racks (B6) erns (B10) fater Table (C wws (C8) ible on Aerial ressed Plants osition (D2)	n of two required 2) Imagery (C9)
Type:	DGY drology Indiators (minimum Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t Or Crust (B4) osits (B5) on Visible on A Vegetated Co vations: r Present? Present? Present? Present?	cators: um of one 2) Aerial Imagoncave Surf Yes Yes Yes	is required; of	Wa Aqu Aqu Aqu Aqu Ayo Oxi Pre Rec Gau Oth D	ater-Staind uatic Faul ue Aquatic drogen St idized Rhi esence of cent Iron in Muck S uge or Wi her (Explain Depth (inc	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior Gurface (C) ell Data (I ain in Rem ches):	B14) or (C1) s on Living (Iron (C4) on in Tilled S 7) D9) harks)	oils (C6)		ondary Indicat Surface Soil Ci Drainage Patte Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P FAC-Neutral T	ors (minimun racks (B6) erns (B10) later Table (C wws (C8) ible on Aerial ressed Plants osition (D2) est (D5)	n of two required 22) Imagery (C9) (D1)
Type:	DGY drology Indiators (minimum Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t Or Crust (B4) osits (B5) on Visible on A Vegetated Co vations: r Present? Present? Present? Present?	cators: um of one 2) Aerial Imagoncave Surf Yes Yes Yes	is required; of	Wa Aqu Aqu Aqu Ayu Cxi Pre Rec Gau Coth	ater-Staind uatic Faul ue Aquatic drogen St idized Rhi esence of cent Iron in Muck S uge or Wi her (Explain Depth (inc	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior Gurface (C) ell Data (I ain in Rem ches):	B14) or (C1) s on Living (Iron (C4) on in Tilled S 7) D9) harks)	oils (C6)	Second Se	ondary Indicat Surface Soil Ci Drainage Patte Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P FAC-Neutral T	ors (minimun racks (B6) erns (B10) later Table (C wws (C8) ible on Aerial ressed Plants osition (D2) est (D5)	n of two required 22) Imagery (C9) (D1)
Type:	JGY drology Indiators (minimum Vater (A1) ter Table (A2) n (A3) arks (B1) ter Deposits (B2) osits (B3) ter Crust (B4) osits (B5) on Visible on A Vegetated Co Vations: r Present? Present? essent? llary fringe) corded Data	cators: um of one 2) Aerial Imagoncave Surf Yes Yes (stream	is required; of gery (B7) face (B8) No No gauge, more	Wa Aqu Hyc Oxi Pre Rec Oth Oth D D nitoring wel	ater-Staind uatic Faul ue Aquatic drogen St idized Rhi esence of cent Iron in Muck S uge or Wi her (Explain Depth (inc	na (B13) c Plants (E ulfide Odo izospheres Reduced Reductior Gurface (C) ell Data (I ain in Rem ches):	B14) or (C1) s on Living (Iron (C4) on in Tilled S 7) D9) harks)	oils (C6)	Second Se	ondary Indicat Surface Soil Ci Drainage Patte Dry Season W Crayfish Burro Saturation Vis Stunted or Str Geomorphic P FAC-Neutral T	ors (minimun racks (B6) erns (B10) later Table (C wws (C8) ible on Aerial ressed Plants osition (D2) est (D5)	n of two required 22) Imagery (C9) (D1)

Project/Site: 64 Acres, Blue Lake Camp	oground, Smith Township	Cit	ty/County:	Whitley Cour	nty	Sampling Da	ate:11-Nov-14
Applicant/Owner: All American RV Reso	orts I, LLC.			State:	IN		
Investigator(s): Jacob Bannister and Mo			Section, Towr		: S 10		
Landform (hillslope, terrace, etc.): Lowl	land			Local relief (c	concave, convex	x, none): concave	
Slope: 0.0% 0.0 ° Lat.:			Long.:			Datum:	
Soil Map Unit Name: Coesse silty cla						I classification: None	
Are climatic/hydrologic conditions on the		Yes (• No O	/If no. ex	xplain in Remark		
Are Vegetation \Box , Soil \Box		significantly dis		• •	ormal Circumsta	,	res ● No ○
						inces present.	C3 © 110 ©
Are Vegetation, Soil SUMMARY OF FINDINGS - A		naturally proble		•		y answers in Remarks.) ets, important feat	ures, etc.
Hydrophytic Vegetation Present?	Yes No						-
Hydric Soil Present?	Yes O No O			e Sampled A			
Wetland Hydrology Present?	Yes O No O		withi	in a Wetland	d? Yes ○	No 🖭	
Remarks:	165 0 110 -						
Remarks.							
VEGETATION - Use scie	entific names of plan	nts.	Dominant				
- Clet size, 20 ft		Absolute		Indicator	Dominance 1	Test worksheet:	
Tree Stratum (Plot size: 30 ft)	% Cover	<u>Cover</u> 88.2%	Status		ominant Species	2 (4)
Populus deltoides Gleditsia triacanthos			88.2%	FACU	That are UBL	., FACW, or FAC:	3(A)
2			0.0%	_ FACU		r of Dominant	4 (D)
3 4			0.0%		Species Acros	ss All Strata:	4(B)
5.			0.0%			dominant Species	(A/D)
		85	= Total Cove	er	That Are OF	BL, FACW, or FAC:	75.0% (A/B)
_Sapling/Shrub_Stratum (Plot size: 15	5 ft.)				Prevalence I	Index worksheet:	
1. Populus deltoides		20	66.7%	FAC	Total (% Cover of: Mult	tiply by:
2. Gleditsia triacanthos		10	33.3%	FACU	OBL specie	es <u>0</u> x 1	= 0
3			0.0%		FACW spec		= 80
*			0.0%		FAC specie		0.0
5			0.0%		FACU spec		
<u>Herb Stratum</u> (Plot size: 5 ft.)	30	= Total Cove	er	UPL specie	es <u>0</u> x 5	<u> </u>
1. Phalaris arundinacea		40	✓ 66.7%	FACW	Column To	otals: <u>175</u> (A)	<u>505</u> (B)
2. Toxicodendron radicans		10	16.7%_	FAC	Prevale	nce Index = B/A =	2.886
3. Alliaria petiolata		10	16.7%	FAC		Vegetation Indicators	
			0.0%		I	Test for Hydrophytic	
5			0.0%	!	I ·	nance Test is > 50%	
6 7.			0.0%		✓ 3 - Preva	elence Index is \leq 3.0 1	
0			0.0%		4 - Morp	hological Adaptations ¹	(Provide supporting
9.			0.0%		data in R	Remarks or on a separa	te sheet)
10.			0.0%		☐ Problema	atic Hydrophytic Veget	ation ¹ (Explain)
/21	,	60	= Total Cove	er		s of hydric soil and wet unless disturbed or pro	
Woody Vine Stratu (Plot size:					be present,	unless disturbed or pro	oblematic.
1			0.0%	I	Hydrophytic	с	
2				I	Vegetation		
		0	= Total Cove	er	Present?		
5 / / / de abete acceler					<u></u>		
Remarks: (Include photo numbers	s here or on a separate s	sheet.)					
4							

(Inches) Color (molet)	Profile Description: (Describe to the depth needed to document the indicator or confirm the Depth Matrix Redox Features						c absence of malcator	,			
0-6 107R 4/2 100	эсри.		%	Color (moist			Loc2	Texture	R	lemarks	
14-19 10/1R 4/2 99 7.5/R 4/4 1 C M Clay Loam 19-21 10/7R 3/2 95 7.5/R 4/4 5 C M Clay Loam 1-Type: C~Concentration, D~Depletion, RM~Reduced Matrix, CS=Covered or Coated Sand Grains. 1-Type: C~Concentration, D~Depletion, RM~Reduced Matrix, CS=Covered or Coated Sand Grains. 1-Type: C~Concentration, D~Depletion, RM~Reduced Matrix, CS=Covered or Coated Sand Grains. 1-Type: C~Concentration, D~Depletion, RM~Reduced Matrix, CS=Covered or Coated Sand Grains. 1-Type: C~Concentration, D~Depletion, RM~Reduced Matrix, CS=Covered or Coated Sand Grains. 1-Type: C~Concentration, D~Depletion, RM~Reduced Matrix, CS=Covered or Coated Sand Grains. 1-Type: C~Concentration, D~Depletion, RM~Reduced Matrix, CS=Covered or Coated Sand Grains. 1-Type: C~Concentration, D~Depletion, RM~Reduced Matrix, CS=Covered or Coated Sand Grains. 1-Type: C~Concentration, D~Depletion, RM~Reduced Matrix, CS=Covered or Coated Sand Grains. 1-Type: C~Concentration, D~Depletion, RM~Reduced Matrix, CS=Covered or Coated Sand Grains. 1-Type: C~Concentration, D~Depletion, RM~Reduced Matrix, CS=Covered or Coated Sand Grains. 1-Type: C~Concentration, D~Depletion, RM~Reduced Matrix, CS=Covered or Coated Sand Grains. 1-Type: C~Concentration, D~Depletion, RM~Reduced Matrix, CS=Covered or Coated Sand Grains. 1-Type: C~Concentration, D~Depletion, RM~Reduced Matrix, CS=Covered or Coated Sand Grains. 1-Type: C~Concentration, D~Depletion, RM~Reduced Matrix, CS=Covered or Coated Sand Grains. 1-Type: C~Concentration CA:		4/3	100					Clay Loam			
1-Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains. 1-Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains. 1-Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains. 1-Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains. 1-Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains. 1-Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains. 1-Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains. 1-Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains. 1-Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains. 1-Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains. 1-Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains. 1-Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains. 1-Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Matrix, CS-Covered or Coated Matrix, CS-Covered or Coated Matrix, CS-Covered or Casted Matrix, CS-Covered or Casted Matrix, CS-Covered or Casted Matrix, CS-Covered Matrix, CS-Cover	6-14 10YR	4/2	100					Clay Loam	_		
1 Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. 1 Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. 1 Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. 1 Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. 1 Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. 1 Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. 1 Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. 1 Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. 1 Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. 1 Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. 1 Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. 1 Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. 1 Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. 1 Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. 1 Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered Matrix	14-19 10YR	4/2	99	7.5YR 4	/4 1		M	Clay Loam			
1 Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. 1 Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. 1 Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. 2 Location: PL=Pore Lining, M=Matrix. 1 Indicators for Problematic Hydric Soils 2:	19-21 10YR		95	7.5YR 4			M				
Hydric Soil Indicators:	1911 1011			710111 1,1				olay zoalii			
Hydric Soil Indicators:											
Hydric Soil Indicators:											
Hydric Soil Indicators:											
Hydric Soil Indicators:		,									
Histosol (A1)	••	=Depletion	, RM=Reduc	ed Matrix, CS=C	overed or Co	ated Sand G	ains.	² Location: PL=Pore Li	ning. M=Matrix.		
Histic Epipedon (A2)								Indicators for Pr	oblematic Hydri	c Soils ³ :	
Black Histic (A3)	_ ` ′			_	-	S4)		Coast Prairie R	edox (A16)		
Hydrogen Sulfide (AA)	,			_ `	. ,			☐ Dark Surface (57)		
Straffied Layers (A5)	_ ` ′				. ,	(F1)		☐ Iron Manganes	e Masses (F12)		
Depleted Below Dark Surface (A11)	Stratified Layers (A5)							☐ Very Shallow D	ark Surface (TF12))	
Depleted Below Dark Surface (A11)	2 cm Muck (A10)				•	(. =)		Other (Explain	in Remarks)		
□ Sandy Muck Mineral (S1) □ Depleted Dark Surrace (P7) □ Indicators of Nydrophylic vegetation and wind hydrology must be present, unless disturbed or problematic. Redox Depressions (F8) Redox Depressions (F8) Redox Depressions (F8) Redox Depressions (F8) Present? Problematic.	_ '	`	1)		. ,	F6)					
Sear Mutcy Peat or Peat (S3) Redox Depressions (F8) wetland hydrology must be present, unless disturbed or problematic.		•		Depleted	Dark Surfac	e (F7)		³ Indicators of hyd	Irophytic vegetatio	n and	
Restrictive Layer (if observed): Type: Depth (inches):: No indicators of hydric soils were observed. Hydric Soil Present? Yes No Hydric Soil Present? Yes No No No Hydric Soil Present? Yes No No Hydric Soil Present? Yes No No Hydric Soil Present? Yes No No Hydric Soil Present? Yes No Depth (inches): Type: Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	_ ` `	•		Redox De	epressions (F	8)		wetland hydro	ology must be pres	ent,	
Type:								uniess distui	bed of problemati	. .	
Remarks: No indicators of hydric soils were observed. Approach Approach		ervea):									
Remarks: No indicators of hydric soils were observed. **PYDROLOGY** **Wetland Hydrology Indicators:* Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required update) Secondary Indicators (minimum of two required (B) Secondary Indicators (B9) Drainage Patterns (B10) Drainage Patterns (B10									Hydric Soil Present? Yes No •		
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required for primary Indicators (minimum of two required for primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Dry Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Caryfish Burrows (C8) Drift Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Fall Undation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Depth (inchedes): Depth	Debui (inches).							Hydric Soil Presen	t? Yes 🔾	NO ©	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required of Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Driin Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Thin Muck Surface (C7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Remarks:	oils were o	observed.					Hydric Soil Presen	tr Yes ∪	NU ©	
Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required water (A1) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) True Aquatic Plants (B14) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Again Mark Surface (C7) Thin Muck Surface (C7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Depth (inches): Water Table (Race) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Remarks:	oils were (observed.					Hydric Soil Presen	tr Yes 🔾	NO ©	
Surface Water (A1)	Remarks: No indicators of hydric so	oils were (observed.					Hydric Soil Presen	tr Yes 🔾	NO ©	
High Water Table (A2)	Remarks: No indicators of hydric so		observed.					Hydric Soil Presen	tr Yes 🔾	NO ©	
□ Saturation (A3) □ True Aquatic Plants (B14) □ Dry Season Water Table (C2) □ Water Marks (B1) □ Hydrogen Sulfide Odor (C1) □ Crayfish Burrows (C8) □ Sediment Deposits (B2) □ Oxidized Rhizospheres on Living Roots (C3) □ Saturation Visible on Aerial Imagery (C9) □ Drift Deposits (B3) □ Presence of Reduced Iron (C4) □ Stunted or Stressed Plants (D1) □ Algal Mat or Crust (B4) □ Recent Iron Reduction in Tilled Soils (C6) □ Geomorphic Position (D2) □ Iron Deposits (B5) □ Thin Muck Surface (C7) □ FAC-Neutral Test (D5) □ Inundation Visible on Aerial Imagery (B7) □ Gauge or Well Data (D9) □ Sparsely Vegetated Concave Surface (B8) □ Other (Explain in Remarks) Field Observations: Surface Water Present? Yes □ No ● Depth (inches): □ Wetland Hydrology Present? Yes □ No ● Depth (inches): □ Wetland Hydrology Present? Yes □ No ● Depth (inches): □ Depth (inches	Remarks: No indicators of hydric so HYDROLOGY Wetland Hydrology India	cators:		heck all that app	nly)			Secondary Ir	idicators (minimum		
Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Remarks: No indicators of hydric so HYDROLOGY Wetland Hydrology India Primary Indicators (minimum) Surface Water (A1)	cators: um of one i		Water-9	Stained Leav	. ,		Secondary Ir	ndicators (minimum Soil Cracks (B6)		
Sediment Deposits (B2)	Remarks: No indicators of hydric so HYDROLOGY Wetland Hydrology Indicators (minimum Surface Water (A1) High Water Table (A2)	cators: um of one i		Water-	Stained Leav Fauna (B13)		Secondary Ir Surface S Drainage	ndicators (minimum Soil Cracks (B6) Patterns (B10)	n of two required	
Drift Deposits (B3)	Remarks: No indicators of hydric so HYDROLOGY Wetland Hydrology India Primary Indicators (minimu. Surface Water (A1) High Water Table (A2) Saturation (A3)	cators: um of one i		Water-: Aquatio	Stained Leav Fauna (B13 quatic Plants) (B14)		Secondary Ir Surface S Drainage Dry Seas	idicators (minimum Soil Cracks (B6) Patterns (B10) on Water Table (C	n of two required	
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Appendix M Davey Resource Group Personnel Profiles

Jacob Bannister, M.S.E.S, is a site manager with Davey Resource Group's Natural Resources Consulting team. He manages ecological projects involving invasive species monitoring and control, wetland delineations, vegetation and ecological surveys, mitigation monitoring and reporting, water quality monitoring, and prescribed burning. Mr. Bannister also assists with urban forestry projects using GPS technology and pen-based tablet computers combined with tree identification skills to perform tree inventories and urban tree risk assessments. His previous experience as a landscape supervisor and operations manager with a major landscaping company in Indianapolis, Indiana allowed him to gain experience in tree management, pruning, and planting techniques, as well as herbicide and insecticide applications. While attaining his degrees, Mr. Bannister also gained skills in wetland and forest monitoring and management techniques, watershed planning, urban forestry and ecology, statistical data analysis techniques, and geographic information systems (GIS). Mr. Bannister has completed a U.S. Army Corps of Engineers Wetland Delineation Training Program. He is a Certified Pesticide Applicator, holding licenses in the states of Indiana (F220681), Illinois (CA 91857496), and Ohio (126224). He is also a Certified Arborist through the International Society of Arboriculture (IN-3389A). Mr. Bannister has earned a Bachelor of Science degree in public affairs with a concentration in public management, and a Master of Science degree in environmental science with a concentration in applied ecology, both from the School of Public and Environmental Affairs at Indiana University.

Molly Baughman is a biologist with Davey Resource Group's Natural Resource Consulting team. Ms. Baughman assists with ecological services including invasive species management, mitigation monitoring, wetland delineations, plant identification, and urban forestry projects. She is a licensed pesticide applicator in Indiana (F250568), Illinois (CA91843792), and Ohio (121058); a U.S. Army Corps of Engineers-trained wetlands delineator; and an International Society of Arboriculture Certified Arborist (IN-3443A). Prior to joining Davey Resource Group, Ms. Baughman worked for the Bureau of Land Management conducting vegetation surveys and seed collections and as a research assistant at Purdue University supporting various graduate student field research projects. Ms. Baughman earned a Bachelor of Science degree in environmental plant studies from Purdue University.

Ken Christensen is a senior biologist with more than 30 years of experience in the natural resource field. Mr. Christensen is involved in all aspects of wetlands and stream restoration projects, including design, planting, and implementation. He is also involved with monitoring of mitigation and restoration projects to ensure that such endeavors reach a successful conclusion. Mr. Christensen assists in plant surveys and wetlands delineations and in the field identification of vertebrate populations, especially amphibians, reptiles, and mammals. Proficient with AutoCAD® software, Mr. Christensen is responsible for managing the Global Navigation Satellite System (GNSS) data collection and AutoCAD® mapping operations for all natural resource studies. As an International Society of Arboriculture Certified Arborist (OH-0690A), he performs tree appraisals and inventories and also develops tree preservation plans. Mr. Christensen is a LEED® Accredited Professional and has received the following training: American Ecological Engineering Society Wetland Mitigation Design from Virginia Polytechnic Institute and State University; AutoCAD® for Stream Restoration and Monitoring from North Carolina Cooperative Extension; North Carolina Stream Restoration Institute's Stream Classification and Assessment Program and Stream Restoration Design Principles. Mr. Christensen is prequalified by the Ohio Department of Transportation for wetland mitigation. He

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has also completed training through Ohio Environmental Protection Agency for conducting the following: Headwater Habitat Evaluation Index (HHEI); Qualitative Habitat Evaluation Index (QHEI); Ohio Rapid Assessment Method (ORAM) v.5; and Vegetation Index of Biotic Integrity (VIBI). He is a member of the International Society of Arboriculture, Ecological Landscaping Association, and Northern Ohio Association of Herpetologists. Mr. Christensen holds a Bachelor of Science degree in conservation from Kent State University.

Alicia R. Douglass, M.E.S., is a biologist and project manager responsible for ecological projects including ecological restoration plans and implementation, wetlands delineations, mitigation monitoring, herbaceous vegetation assessments, water quality monitoring, and watershed studies including watershed management plans. Ms. Douglass has experience obtaining Section 401/404 permits, isolated wetlands permits, and Indiana Department of Natural Resources Division of Water permits. In addition, she performs stream assessments using the Headwater Habitat Evaluation Index (HHEI) and Qualitative Habitat Evaluation Index (QHEI); the Indiana Wetland Rapid Assessment Protocol (INWRAP), Ohio Rapid Assessment Method (ORAM), Floristic Quality Assessment (FQA), and Ohio Vegetation Indices of Biotic Integrity (VIBI) for wetland assessments; and the Rapid Bioassessment Protocol (RBP) for macroinvertebrates. She is responsible for preparing and delivering public educational materials and outreach presentations to disseminate technical scientific data in a format that can be easily understood by the general public. In addition, Ms. Douglass assists with Phase I Environmental Site Assessments. Prior to joining Davey Resource Group, Ms. Douglass performed mitigation compliance assessments for 401 Water Quality Certifications for Indiana Department of Environmental Management, and while at Taylor University conducted research using Floristic Quality Assessment (FQA) in mitigation wetlands. She has completed the U.S. Army Corps of Engineers Wetland Identification and Delineation training course and holds a professional certificate in watershed management from the Indiana Watershed Leadership Academy. Ms. Douglass is a member of the Indiana Native Plant and Wildflower Society, Indiana Water Monitoring Council, and the Association of Watershed and Stormwater Professionals, and is a Hoosier Riverwatch volunteer. She holds a Bachelor of Arts degree in biology and a Master of Environmental Science degree from Taylor University.

Kim Klosterman, M.R.P., is a field technician with Davey's Natural Resource Consulting group. She has four years of work experience with invasive species treatment, watershed outreach/education, and open space planning. Before joining Davey Resource Group, she worked for Applied Ecological Services, Inc., performing invasive vegetation treatment, installing erosion control techniques, and planting native species. Ms. Klosterman graduated from Knox College with a Bachelor of Arts degree in environmental studies and from the University of Massachusetts, Amherst, with a Master's degree in regional planning.

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